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THE SPHERE

Vol. CLXXII No. 2241 — WITH WHICH IS INCORPORATED THE GRAPHIC — JANUARY 2 1943

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Volume CLXXII No. 2241 The SPHERE, London, January 2, 1943

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly

THE FAMOUS HURRICANE FIGHTER, THE WORLD'S MOST VERSATILE AIRCRAFT, ASSUMES STILL ANOTHER GUISE FOR WARFARE OVER TUNISIA: It has now been fitted with extra petrol tanks beneath the fuselage to act as escort to Allied bombers

The Hurricane was originally designed in 1934: by 1941, after the Battle of Britain, it had become the most formidable single-seat fighter, not only in the R.A.F., but in the world. It has been in continuous active service in Great Britain, France, Norway, Libya, Abyssinia, Malta, Greece, Syria, Iraq and Russia—and over the sea, for the protection of convoys as well! With the Spitfire, it has swept the air clear of the *Luftwaffe* on many occasions. Since the outbreak of war it has undergone continuous development, and by the end of 1941 it was in service in no fewer than five different versions. The picture reproduced above shows its latest adaptation—for fighting over Tunisia. With extra fuel tanks slung under the fuselage, the Hurricane's range has been so extended that it can now act as fighter escort for Allied bombers The tanks, long and streamlined, are secured under each wing

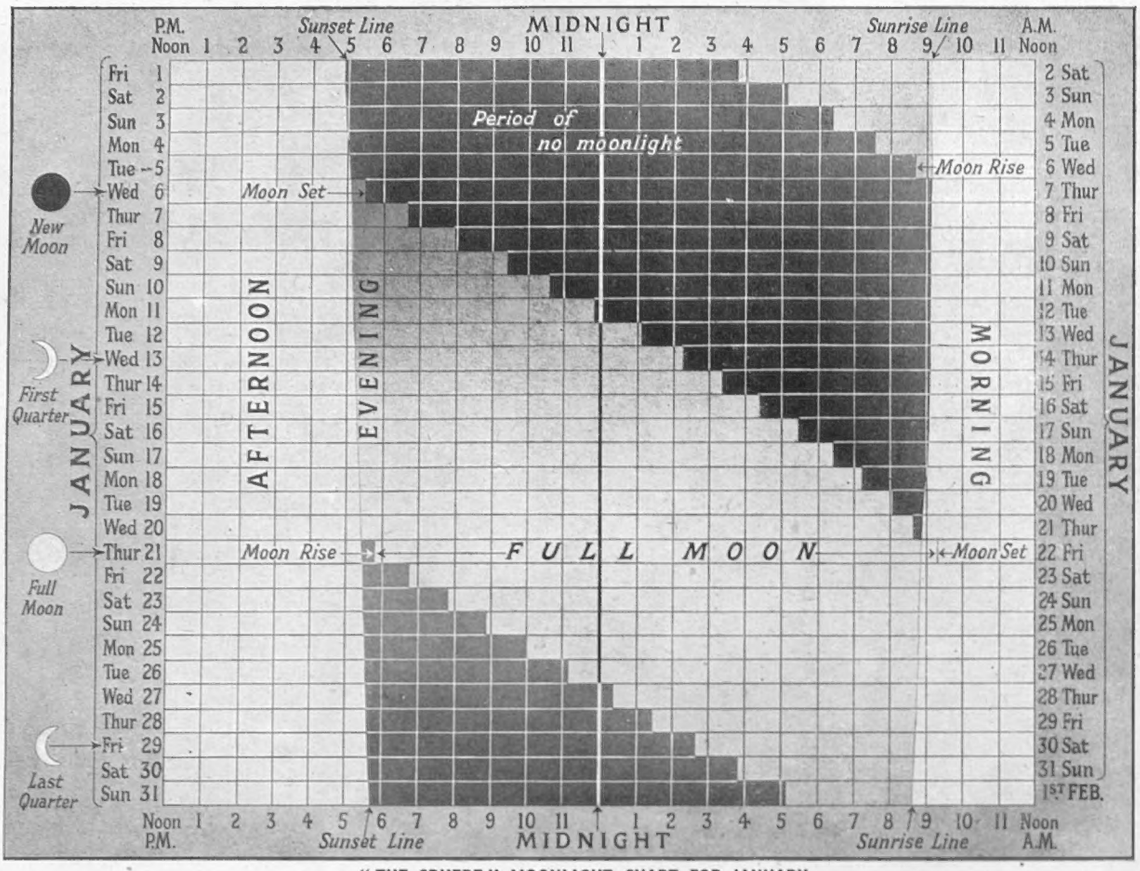
Postage—Inland, 2d.; Canada and Newfoundland, 1d.; Elsewhere Abroad, 1½d.

A WAR NEWSLETTER —No. 174

1, NEW OXFORD STREET, W.C.1.

Another Year Ends.—The fourth winter of war (or eighth or twenty-ninth, or whatever it is) finds us worn but unshaken, stronger in faith and hope, happier than of late; materially shabby, spiritually spring-cleaned. It is of things material on which I will discourse. I suppose that even under peace conditions the natural process of change and decay would in four years create a transformation in the life of a village. In war, of course, the *tempo* increases rapidly. Casualties are imposed on natural causes, military needs hasten the transformation of scene. Calling-up, evacuation, Civil Defence needs, military occupations, ring the changes on the cast. We are a changed village, a village almost unrecognisable by a Rip van Winkle of the 30's. Our gardeners are nearly all gone, so are our domestic servants. But we still eat well-cooked meals, still raise succulent vegetables. Our wives long since have proved better and far more economical cooks than those professionals who came (and went) at £70 a year. With such fuel as we possess, the furnaces are still filled, the cinders are sifted of half-burned coke, the brushwood is brought in, logs cut. The essential drains are kept clear of leaves, the essential paths of encroaching bracken and heather. In the 1930's, we smaller householders thought ourselves perpetually busy. We think so to-day with more justification. Perhaps even to-day we are carrying only half a load! Superimposed on the householder's professional duties and voluntary county services (J.P., R.D.C. and what not) are now his Home Guard or his Civil Defence duties and all the duties of his gardener, odd man, boy, chauffeur or some of these. On the housewife, all the duties of her cook, housemaid, parlour-maid and charwoman. Who was busy in the 1930's? The amateur has mastered in a few months all the mysteries of raising vegetables and cooking them. What a showing-up of pre-war amateurs and pre-war professionals!

A Return to Dignity.—Time out of mind it has been the custom of frail mankind to take a new leaf for the New Year. Let us not neglect this fine old custom. With malice to none, with goodwill to all men of goodwill, we confine ourselves to a plea for a return in 1943 to dignity and decency, unilateral at least, in international relations. General de Gaulle, with a single, definite issue in mind, made a sound point of world-wide application. Total war—peoples' war—has changed the nature of the grand strategy of war. To-day that grand strategy is not the prerogative of the military leaders, but of the nations at war. *Their* ideals, *their* standards of dignity, humanity, civilisation, are a part of, and a motive force in, the grand strategy. Of the leaders in this world war, judged on their records of public utterances, President Roosevelt and General Smuts seem best to have realised this truth. It is clear to me that Mr. Churchill, whose nobler utterances have "half-redeemed the fame" of the wordy side of this war, has now recognised it too. The Allies are fighting for the decencies, the dignity, of human existence. They are at war with nations who have sold their souls and bodies to men who employ the methods of the gutter, the standards of the thieves' kitchen and the language of the underworld of crime and vice. It ill becomes great leaders of the noblest cause for which men ever gave their sons to copy those methods and speak in that language, when they speak as the mouthpiece of a great people sure of the justice and the victory of their cause. Let 1943 see the end of this vendetta of the gutter. Let Hitler and Mussolini and their egregious satellites enjoy a monopoly of mud-slinging and personalities. Let them bawl unchallenged, coin new terms of abuse, new refinements of boasts and threats and insults. Words, even the filthiest and most lurid, break no bones and never yet have sapped the morale or will or purpose of men who are men; neither have threats.



"THE SPHERE" MOONLIGHT CHART FOR JANUARY

The first few nights of the new year will be quite unrelieved by moonlight, the moon not reaching its first quarter stage till the night of the 13th. When the year is exactly three weeks old, the moon is at its full, rising that night half an hour after sunset and setting half an hour after sunrise. The last quarter should be visible on the night of the 29th

A limited number of these charts will be supplied free of charge on application to the Publisher, "The Sphere," Commonwealth House, 1, New Oxford Street, W.C.1, but 2½d. in stamps must be enclosed with the application

Stocktaking—A Personal Reaffirmation.—December is stocktaking month. The year 1942 has proved the most puzzling and obscure of any I can recall among near a score during which I have written this *Newsletter*. I take no exalted view of journalism, even the best. Of the lowest form I take the lowest view. Of the decent average, the middle section, I hold to certain principles, practical, unidealised, impersonal and far from exalted. In peace it is a difficult job to do well. Under war conditions and restrictions it is wellnigh impossible. To be consistent is beyond the compass even of a super-publicist. To be honest and decent is probably still possible. Consistency I never have claimed. Indeed, it is the negation of progress by experience. Decency is a matter of taste. Since the war began, I have been consistent in a very few tenets, and some of them I will restate:—(1) I have believed through thick and thin that our cause would ultimately triumph. (2) I have believed that, subject only to military security requirements, freedom of expression should be maintained in the Press, and bureaucratic dictatorship or petulant muzzling be fought. (3) I have believed that the war *could* be won against ruthless and barbarous enemies without the abandonment on our side of the traditional dignities and conventions of public utterance. (4) I have believed that we could win this war with less *showmanship*, especially in relation to the fighting Services, and that we have all along held an exaggerated belief in the efficacy of propaganda. (5) I have believed that fair criticism need not and should not exclude even Ministers of State where that criticism embraces their conduct of matters on which the nation as a whole may justly hold decided views. (6) I share with many civilised men an utter, if illogical, detestation of night-bombing from the air. I recognise it as an accepted feature of modern war when part of a military campaign, and I accept it as not only justice but sheer necessity, even when it is not directly a part of a particular land or sea engagement. But in the latter case, as I believe, the bombs speak louder than the bombast. Bitter experience brings many gifts to a man's character—dignity, and peace and restraint, and human sympathy and pity. But dignity above all. So, at least, I imagine. Well, there it is. No human mind is consistent, no human mind wholly honest, wholly sure in its beliefs. A journalist in a world war of stark ferocity gropes through a pea-soup fog without a candle end and matches. But he may perhaps hold on to the railings and feel his way along the pavement, if he cannot hope to light his neighbours home.

"In Yon Smoke Concealed."—The Russians forge on. How they do it and what they do is somewhat obscure. The contending Powers clearly adopt different principles in their official bulletins. Propaganda plays a part in most of those policies, and it is reasonable to assume that for military reasons or political reasons those reports may be sometimes coloured or sometimes toned down. After delays, in the case of Russian claims, we sometimes get a check-up by comparing later enemy reports of fighting in areas long since claimed as captured by the Russians. But mystery for ever hangs over Russian claims of Germans killed and wounded and captured, and of material counted as in the bag. We scratch our heads and wonder how on a 1,000-mile front exact estimates of captured guns and rounds can be made and announced in a matter of hours and under deep snow. And another puzzle. Those who have troubled to keep a file of Russian daily reports and periodic recounts of Germans liquidated and of German planes brought down or otherwise destroyed have long since reached figures astronomical. We must admit that the mystery is insoluble by any standards we possess. But that is not the end of it. There are solid facts. Russia keeps Hitler pinned down, perpetually anxious, gradually giving way, using up reserves of all arms, incapable of breaking off. How the Russians do it we do not know, but that ignorance only enhances our admiration for a fighting race of giants. And little by little the Nazi tide *is* ebbing back towards Germany.

Nearer to Tunis.—If the exuberant expectations of the Wadi Matratin affair were better left unexpressed, since they ended in a flop, the tide and battle in Tripolitania never slackened. By the beginning of Christmas week, our advance elements had reached to within 200 miles of Tripoli, and Rommel, constantly mauled and again in something like rout, was very much on the run. The Navy played a big, if unadvertised, part in the business of supply over these ever-lengthening supply lines. More of the Mediterranean is already *mare nostrum* than we dreamed possible. The Air Force contribution is better documented for us. Landing-grounds are taken over and in use almost before the last German plane has taken off or been cleared away. In the matter of hours, the ground staffs and the petrol are on the spot and already an air-power ring is round the vital pin-point on the North African map. West and east, Allied air power is massing, new airfields taken into commission, a single policy and a two-way, double-shuttle service of fighters and bombers are ready to operate on the last footholds of the Axis in Africa. There can be but one end, if the miracles achieved by the Eighth Army can be kept going, when the Navy's contribution must suffer a temporary diminution as the advance approaches nearer to the narrows; and if Anderson's preparations are as forward as we have been led to believe. The end must come, and perhaps sooner than we suppose, in a synchronised movement by land and air from east and west, not to mention north and south.

THE OLD STAGER

THIS IS A DZOT—AND IT IS THE KEY TO THE GERMAN WINTER DEFENCES IN RUSSIA. The above is the first picture to be received here showing how the Dzot, or strong-point, on the Russian front is built of wooden beams and earth and concealed in a wooded fastness under deep snow

The GERMAN DEFENSIVE SYSTEM in RUSSIA

The one thing which stands between Hitler's armies and disaster on the Russian front this winter is the Dzot. This is not a pill-box and not a redoubt—and not quite a dug-out: it is, to use the Russian words for it, "a wood-earth-firing-point" — or "a Derevna Zemlaya Oruzhina Tochka," which gives the initial letters DZOT. They are strong-points built of big logs packed with earth. A vast network of them is now strung right across the plains and steppes of Russia: each supports at least two others, and each has a crew of twelve men For armament a Dzot has light artillery and mortars.

"It is rather like a tiny log cabin with broad windows sunk deep in the ground," writes one war correspondent. "The logs may be 2 ft. thick; then there is a layer of packed, loose earth, then logs again. The ceiling is not so thick. The 'front door' is down steps at the back, and one window takes up all the side facing the enemy. There are two floor levels. The higher level is the half by the window, where there are ledges for ammunition. This is the firing-platform."

The Dzot is, apparently, used in protecting the German lines of supply and in forming perimeter defences of the strong support points. Linked up as they are, these Dzots have proved a tough problem for the Russians in their attacks on the enemy's defensive lines; but the latter have obviously found a method of breaking them up successfully.

A MEDICAL ORDERLY WITH A SOVIET ARMY NURSE deals with "walking wounded" at their casualty clearing-station, established in what was a former German dug-out, after the advancing Russian troops had driven the Nazis from their fortified position

GENERAL GOLIKOV, whose army is operating to the south-east of Voronezh across the frozen Don, and who has smashed the German defences and recaptured the town of Boguchar. Rostov is the ultimate objective of the new drive

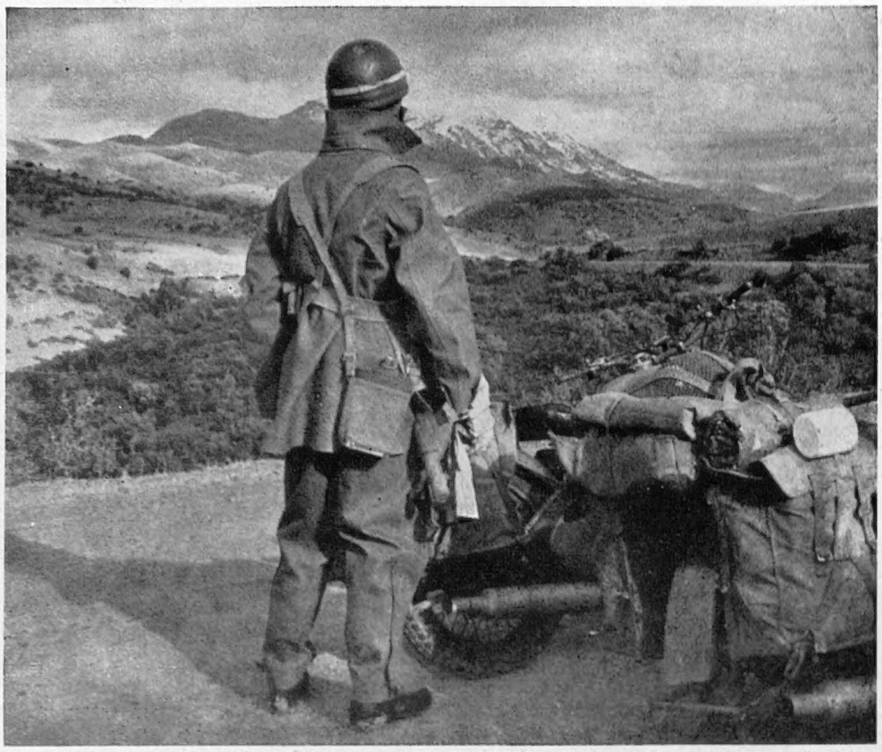
A RADIO PICTURE DIRECT FROM MOSCOW showing Russian sappers, under a tommy-gun guard, detecting and actually removing mines laid by the retreating Germans in the snow in an endeavour to hold up the advance guard of the oncoming Red Army

MUD ON THE RUSSIAN FRONT: The Nazi Minister of Munitions, Albert Speer, driving one of the German motor-cycle tractors on a boggy road behind the lines. This picture illustrates what happens after prolonged use of a Russian road by enemy transport

The FIRST ARMY in TUNISIA

The latest pictures from the Fighting Front

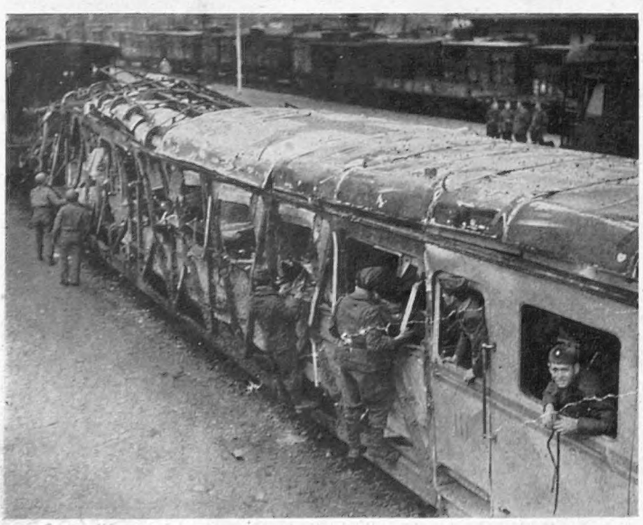
A SNIPER'S POST UP IN THE HILLS OUTSIDE MATEUR. This British soldier claims to have accounted for twelve of the enemy, firing from his shallow post in the hillside



A BRITISH DESPATCH-RIDER IN THE ATLAS MOUNTAINS. This range continues into Tunisia; the rough nature of the country in this region has, in fact, hampered the task of providing suitable aerodromes for our fighter aircraft

BRITISH PARATROOPS ON THE ROAD NEAR MEDJEZ-EL-BAB, where severe fighting has recently taken place. Note the specialist kit worn by these picked troops

THE INEVITABLE PETROL-TINS FORMED INTO AN IMPROVISED CANTEEN: With R.A.F. men in the foreground examining Sten guns. Even the cooking-range has been constructed out of empty petrol-cans



THE WRECK OF A RED CROSS TRAIN which was bombed by the *Luftwaffe*. The train was steaming slowly into a Tunisian station when it was attacked from the air

SURROUNDED BY EMPTY PETROL-TINS, an R.A.F. fitter shaves in his improvised bathroom at the edge of the airfield whilst his Squadron's aircraft are away on operations over the fighting area in Tunisia

THE LAST TIME WE HEARD HITLER . . .

Six Pictures which Show What He Looked Like as He Made His Munich Speech on November 8 Last

On November 8, 1942, on the eve of the anniversary of the 1923 Nazi Putsch, Hitler addressed his party members in Munich. He repeatedly declared that Germany would make no more offers of peace. He dismissed the North African campaign in a few words, but devoted much time to justifying his troops' lack of progress in Russia. In his concluding words he begged his audience to make their every deed and thought a prayer " for our Germany." These pictures, received through neutral channels, show the Führer during the course of his speech. The quotations embody some of the outstanding remarks during its course. Our readers will, of course, not fail to observe the present appearance of the Nazi leader and, in particular, the general plumpness of his figure and the continuing wildness of his expression !

" I work my fingers to the bone to save my nation." (At this moment—and throughout his speech—the Führer, as usual, made great play with his hands whilst speaking !)

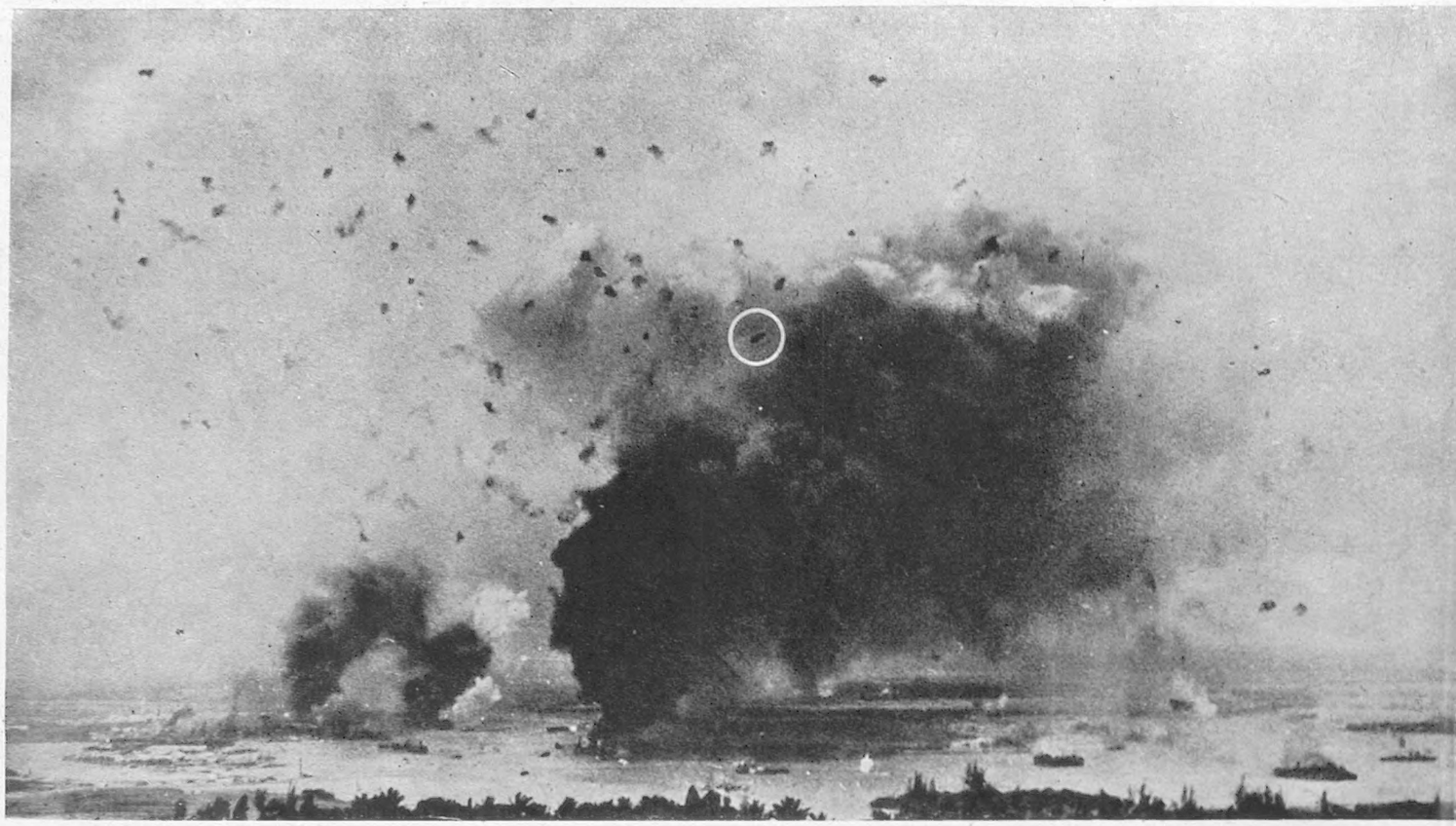
" People say it is a strategic blunder that the Germans have gone to Stalingrad. Just let us wait and see whether that was a strategic blunder." (The German people have waited—and are now seeing !)

" I tried again in 1940 to offer my hand for peace—again it was rejected." (And the Führer appears to be very surprised that one should reject his worthless offers !)

" Sometimes for months I have to play the onlooker. Don't you think my heart is not bleeding with wrath when I think of these air attacks ? " (With no mention of the German attacks on Britain !)

" We have once again the same coalition facing us as our enemy, beginning with the chief of International Freemasonry, the half-Jew Roosevelt "

" I do not even know what overtime means. My work is the Reich's destiny. I cannot leave it : it pursues me day and night "



HOW THE JAPANESE BOMBERS CAME OVER SHIPS AND AIRCRAFT AT PEARL HARBOUR: The big black column of smoke in the centre rises from the shattered battleship "Arizona": above it (in circle) is an enemy plane diving, and the black puffs are from bursting anti-aircraft shells. To the left of the "Arizona" two other clouds of smoke come from the floating dry-dock, where the destroyer "Shaw" had just exploded, and from the burning Navy Yard. Farther to the left are the Hickam Airfield and the Schofield Barracks, both of which suffered in the treacherous attack

THE U.S.S. "DOWNES" AND "CASSIN": The jumbled mass of wreckage in the foreground of dry-dock No. 1 are the destroyers "Downes" (left) and "Cassin" (right). The battleship behind is the "Pennsylvania," 33,100-ton flagship of the Pacific Fleet, which suffered relatively light damage and which was repaired shortly afterwards. The main and auxiliary machinery fittings of the "Downes" and "Cassin" are being transferred to new hulls

WHAT ACTUALLY HAPPENED AT PEARL HARBOUR

A Series of Remarkable Pictures Only Recently Released by the U.S. Navy Department

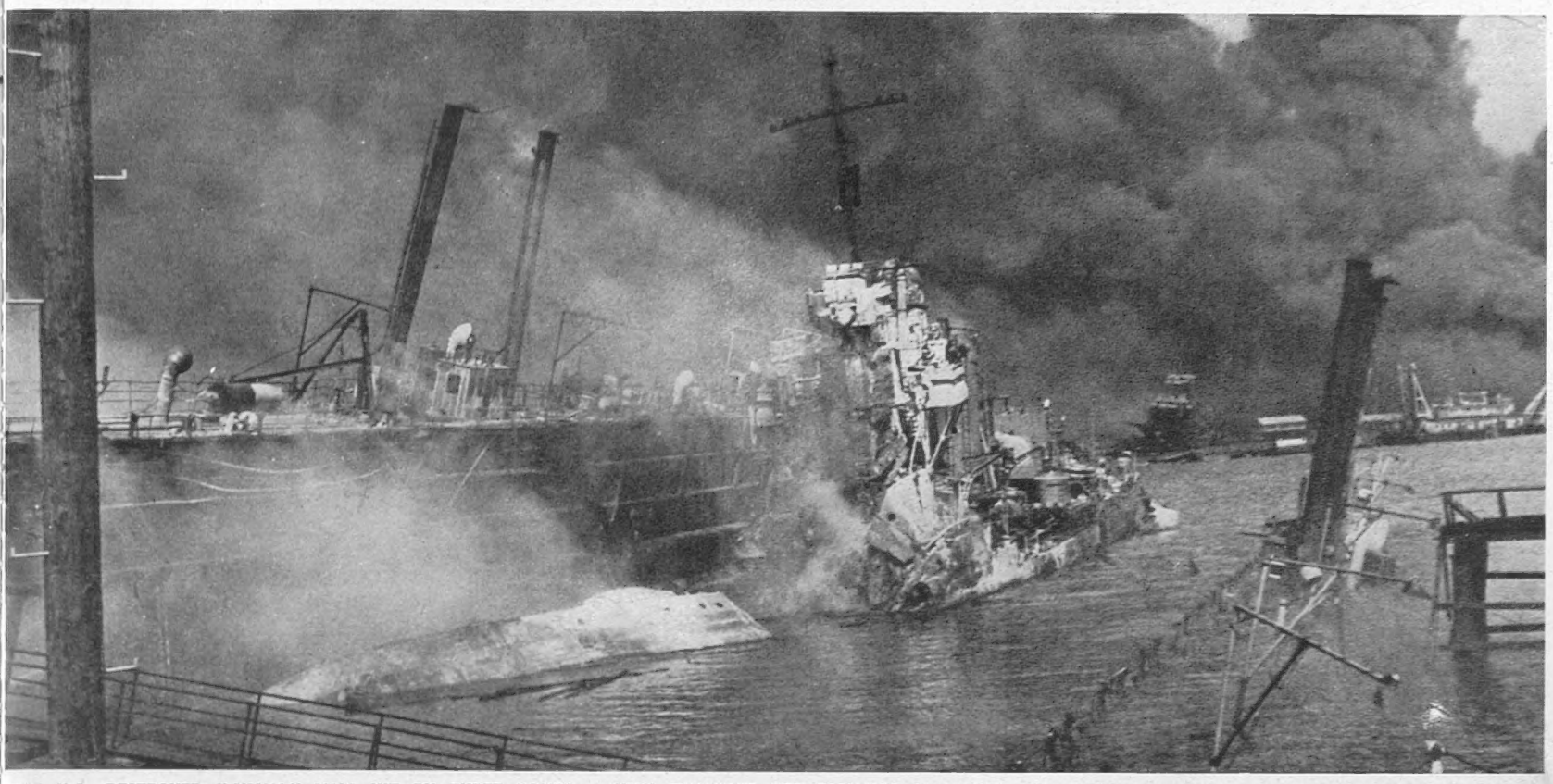
On December 7 last, the United States Navy Department marked the first anniversary of Pearl Harbour by giving full details of what actually happened to the American Fleet at Hawaii as a result of the treacherous attack by the Japs. The series of pictures reproduced on these pages, which recently arrived in this country, add considerable point to the facts and figures previously disclosed by Washington.

The facts revealed in the Navy Department's statement were that about 100-odd Japanese planes, in little over an hour and three-quarters, disabled every American battleship, most of the aircraft and many other vessels in the Hawaiian area, at a cost of 28 of their planes and 3 small submarines.

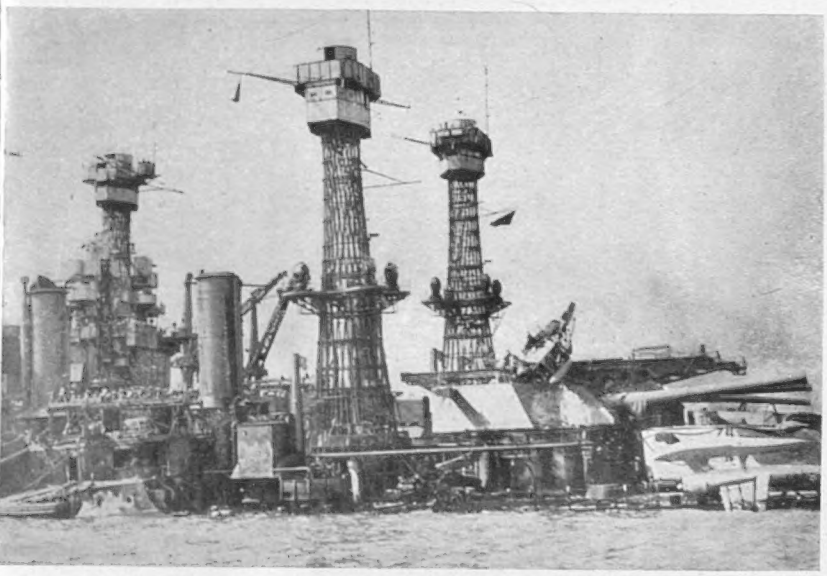
In all, 8 battleships, 7 cruisers, 28 destroyers, 5 submarines and other craft were moored in Pearl Harbour that day. When the last Japanese plane had flown back to its carrier, 5 battleships, 3 destroyers, and 2 auxiliaries were so badly damaged as to make them useless for a long time. Three battleships, 3 cruisers and 2 auxiliaries were damaged. A total of 80 naval planes and 97 army planes were destroyed. There were 2,343 American dead (perhaps more, for 960 are still reported missing) and 1,262 wounded.

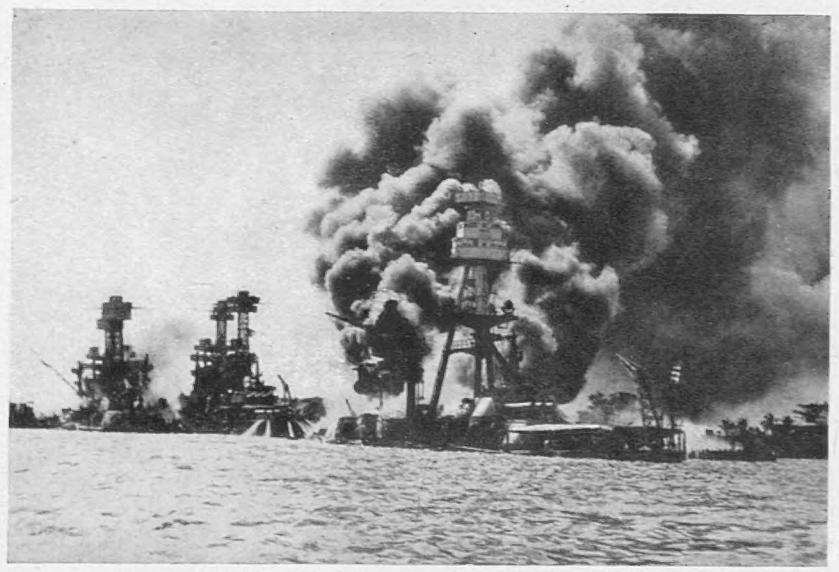
But—if the damage done by the Japanese was greater than had been revealed hitherto, so were the speed and efficiency with which repair work has been done. Three damaged battleships, the *Pennsylvania*, *Maryland* and *Tennessee*, and 3 cruisers, *the Helena*, *Honolulu* and *Raleigh*, returned to active duty several months ago. Of 5 badly-damaged battleships, the *Arizona* is the only one definitely lost. Preparations for righting the *Oklahoma* are in progress, though the final decision on whether to proceed with the work has not yet been made.

The battleships *California*, *Nevada* and *West Virginia* were among a group of ships, which also included the destroyer *Shaw* and two auxiliaries, of which the Navy Department stated "a number" were now in full service. Names were withheld so as to keep vital information from the enemy. Two destroyers in the badly-damaged group, the *Cassin* and *Downes*, have had their main and auxiliary machinery salved.

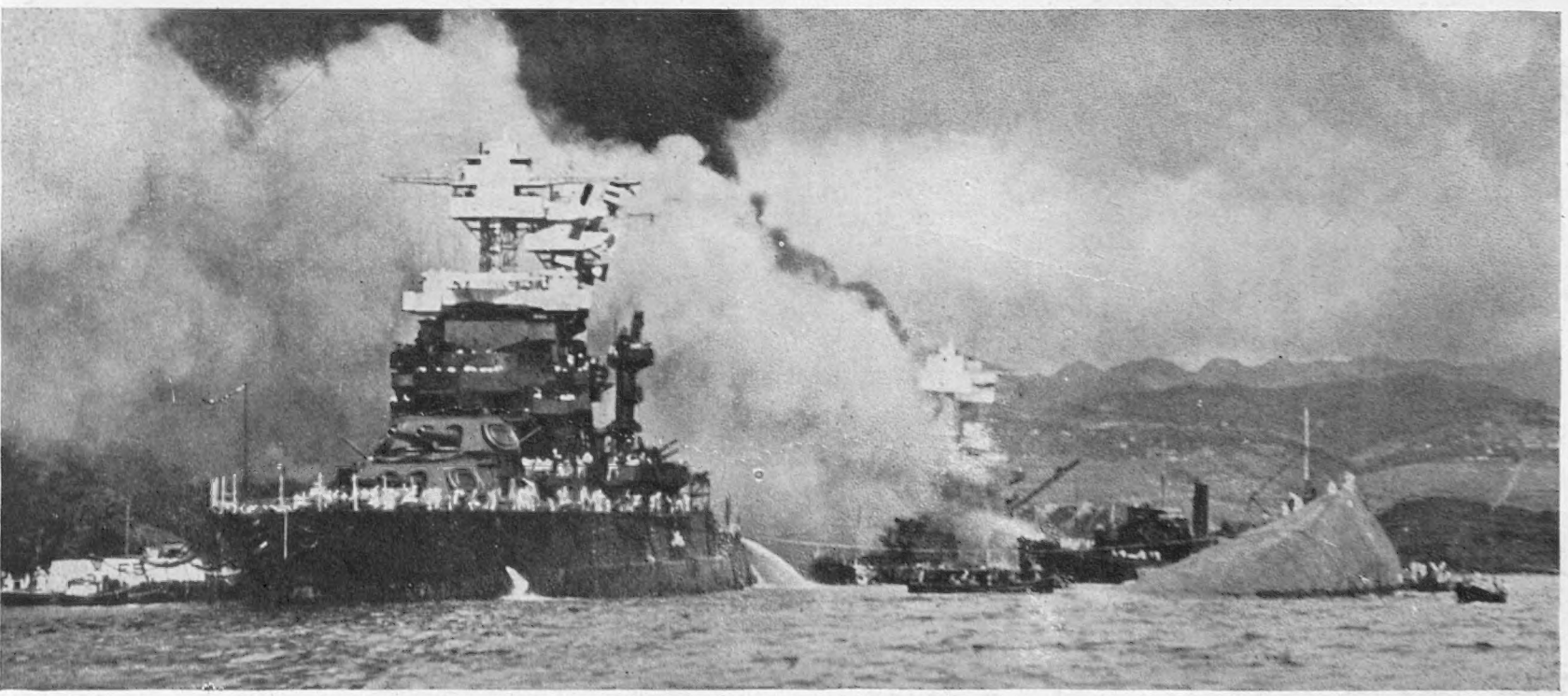


THE U.S. DESTROYER "SHAW" WAS HIT BY THREE BOMBS, WHICH EXPLODED HER FORWARD MAGAZINE: The 1,500-ton vessel lay a twisted mass of wreckage in the heavily-bombed floating dry-dock YFD-2. Note the bow of the "Shaw" lying on its side in the foreground: part of the dry-dock, at right, is under water, whilst the other side is listing heavily. Both the destroyer "Shaw" and the dry-dock are now back in commission!





On left—Battered by aerial torpedoes and bomb hits, the 31,800-ton "West Virginia" rests on the bottom at Pearl Harbour. Fire following the explosions, as well as oil flames from the near-by sunken "Arizona," added extensively to the damage. Note the wrecked scout plane topside of the gun turret at right and the overturned plane in the right-hand corner. In the background is the battleship "Tennessee." *On right*—From left to right are—"West Virginia," severely damaged; "Tennessee," damaged; and "Arizona," sunk



THE U.S.S. "OKLAHOMA" CAPSIZED AS A RESULT OF THE BOMBING SHE SUFFERED. Moored in-board of her was the 31,500-ton "Maryland" (on left), which was only damaged slightly and which was one of the first ships to rejoin the Fleet after the Japanese attack

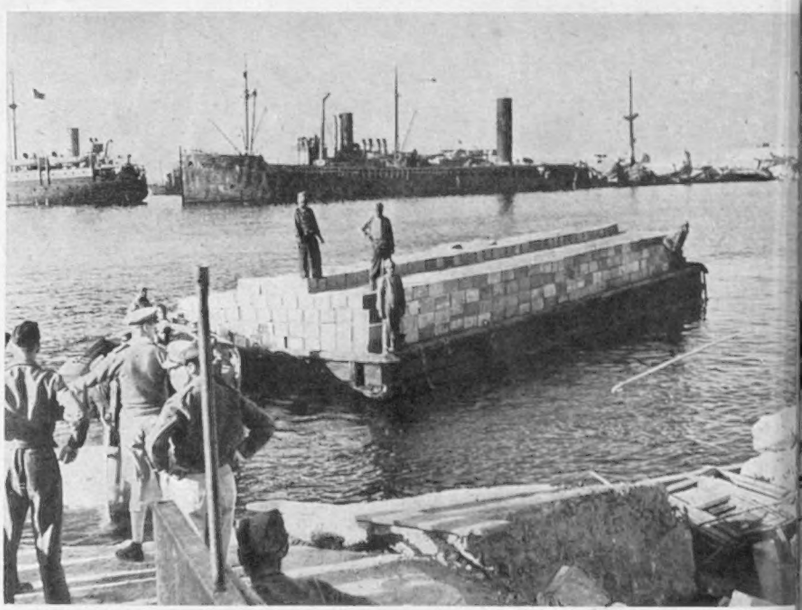
With the EIGHTH ARMY in LIBYA

A Series of New Pictures Before the Launching of the Second Offensive at El Agheila

A VIEW OF BENGHAZI from the bridge of the South African Naval sweeper "Imhof" as it entered the harbour—the first ship in after the British occupation of the town. The twin towers of the cathedral may be seen in the distance

BENGHAZI RE-ESTABLISHED AS A BRITISH SUPPLY BASE: On th bridge of the "Imhof" as she entered the harbour. Thi picture was taken after the harbour had been cleared o mines: supply ships are now using it again. During the lu before the resumption of the offensive, both General Alexande and General Montgomery paid visits to the town and harbou

GENERAL ALEXANDER PAYS A VISIT TO BENGHAZI. The Commander-in-Chief, Middle East, during his stay called at the building which had been used by the Italians as Headquarters before our third reoccupation of town and harbour



SUPPLY SHIPS LYING IN BENGHAZI HARBOUR, with a lighter loaded with supplies from them coming alongside a smashed quay. Note the sunken enemy ships in the to right-hand corner of this picture

ENEMY HATS AND TOPEES—principally Italian—littering the gutter of a street in Benghazi after the enemy had hurriedly fled before the Eighth Army's advance

THE ADVANCE OF SUPPLY LORRIES ALONG THE ROADS IN LIBYA WAS FRAUGHT WITH DANGER FROM MINES. Before any vehicle could pass along a newly-captured stretch of road, Sappers had to probe every yard of it. Here a truck pauses whilst Sappers ahead remove still another dangerous specimen

After a nine-days' journey over hundreds of miles of desert roads, a company of R.A.S.C. drivers delivered an unusual cargo at Derna docks—a number of Jaffa lighters for unloading supply ships in the harbour. They were strafed and bombed by enemy 'planes, but all got through safely. One of them is here seen being loaded into the water

THE GENERAL'S LUNCH: General Montgomery stops by the wayside for a hastily-prepared meal, before opening his offensive at El Agheila. On the menu were bully beef and tinned potatoes: they had been prepared by the General's own cook, by the wayside

LINE OF ITALIAN TANKS which were left intact by the enemy in Cyrenaica in his hurried flight to the west

OFFICERS AT AN "AT-HOME" GIVEN BY A MAJOR-GENERAL, after a ceremonial church parade at El Alamein. This was a Thanksgiving Service for the success of the Eighth Army and to commemorate those who fell at Alamein. The Rev. G. E. Hope, a Senior Chaplain to the Forces, officiated; an "At-Home" to officers was held by one of the Higher Command after the service

THE PURSUIT OF ROMMEL INTO TRIPOLITANIA BY THE EIGHTH ARMY IN THE SECOND HALF OF THE MONTH OF DECEMBER: A British armo for quick communication with the main forces behind). All are waiting for the signal to

THE APPEARANCE OF PRISONERS—and what it can tell us. These men are all Germans, and all were captured in Egypt (See notes on right)

That the appearance of German prisoners captured by us in successive stages of the last war represented a barometer of the enemy's condition was a well-known fact to intelligence officers at the time. The latest pictures of captives taken in North Africa and Russia should therefore hearten us.

The outstanding fact about the German Army in the early part of the war was the quality of its equipment. When the Afrika Korps first entered Libya it was a *corps d'élite*, the special darling of Hitler: after long training under scientific conditions in Austria, it had been provided with outfits and equipment designed by misguided professors to meet all contingencies of climate and terrain.

But the Afrika Korps, unlike the Eighth Army, could not maintain its original standard for long. Whereas each successive batch of our reinforcements reaching Egypt was better equipped than the one going before, Rommel had progressively to make do with less well-trained men in poorer outfits.

Thus it was found by the Eighth Army, even before the Alamein victory, that the Afrika Korps was becoming—sartorially, at least—a ragged shadow of its former smart self. A picture on this page shows some German prisoners taken by one of our patrols prior to the big battle. Not only are the men personally unkempt—it used to be said of the German Army that it would keep its heads close-shaven at the North Pole—but their uniforms are obviously shoddy.

Moreover, there is a revealing slackness in the diversity of their nether garments—some hanging loose and others held in uncomfortable puttees—while the footwear of others tells perhaps the most significant story. The rather dandified appearance of their feet is due to the fact that they are wearing football boots! What 's more, subsequent investigations showed that they were British football boots, taken by the Germans from a store kept by our men at Mersa Matruh.

These initial impressions were more than confirmed by the mass captures of subsequent weeks. A large proportion of the thousands of Germans taken prisoner then were not only extremely ill-dressed, but, in the words of one observer, "more dirty and untidy than even the circumstances of capture warranted, and mostly have poor physique." The same tale has come increasingly from Russia.

car patrol halts at the edge of a typical wadi before going on to explore for enemy minefields. On the right is the Headquarters wagon (equipped with radio whilst in the distance the retreating enemy lays down a protective barrage—*Drawing by Edward Osmond*

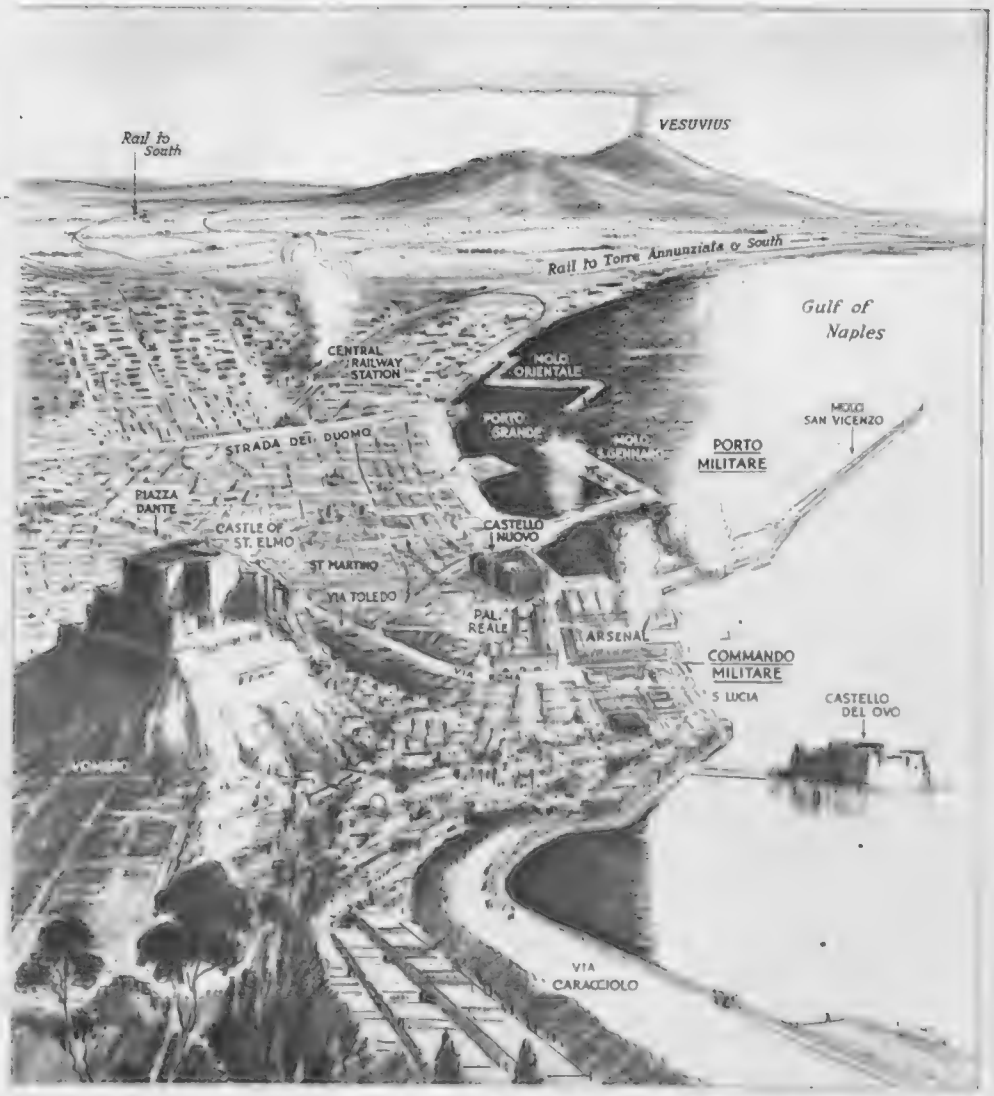
Ever since the retreat of the German forces under Marshal Rommel began on November 4 at Ghazal, behind the El Alamein line in Egypt, advanced patrols of the Eighth Army have never lost touch with the fleeing Afrika Korps and their bewildered Italian accomplices. Even when hampered by bad weather (and the Eighth Army has suffered cruelly in this respect), the pursuers have still clung to the enemy's heels. When the Axis made a definite stand at El Agheila, the work of the patrols still continued—and in an even more intense form. During the three weeks of this period they had to make their advances cautiously, owing to the enemy's lavish use of mines all round his defended areas: wire, too, was stretched across all exposed sections of the Afrika Korps' new front. A tank or armoured car on patrol can only penetrate for a certain distance under such conditions. At night time, of course, it is easier to penetrate the forward positions unseen, and to advance to a greater depth within the enemy's lines. But this is work which requires great nerve and skill, and quick eyes to detect where the enemy's greatest strength is hidden. In the drawing reproduced above, the group of officers to the right are watching through field-glasses the enemy's protective artillery barrage in the distance: in the foreground their H.Q. wagon has been drawn close up to the side of one of the many wadis which typify this region: on the left some of the members of the patrol are awaiting the signal to proceed. As the sun goes down, the shadows will help in concealing further movement

On right—This first picture of German airborne reinforcements gives a clear indication that air travel for the *Wehrmacht* is not always a joy-ride. In furious haste, so that the planes can hurry back to Sicily (or wherever else they came from) for another load, the troops have been decanted on to a sandy, makeshift aerodrome and are left with the task of reassembling their badly-packed kit. Not only the obvious confusion, but also the manifold creases in the overalls of the gentleman on the right, tell their story. And this was once the world's most rigidly-disciplined and smartly-equipped army!

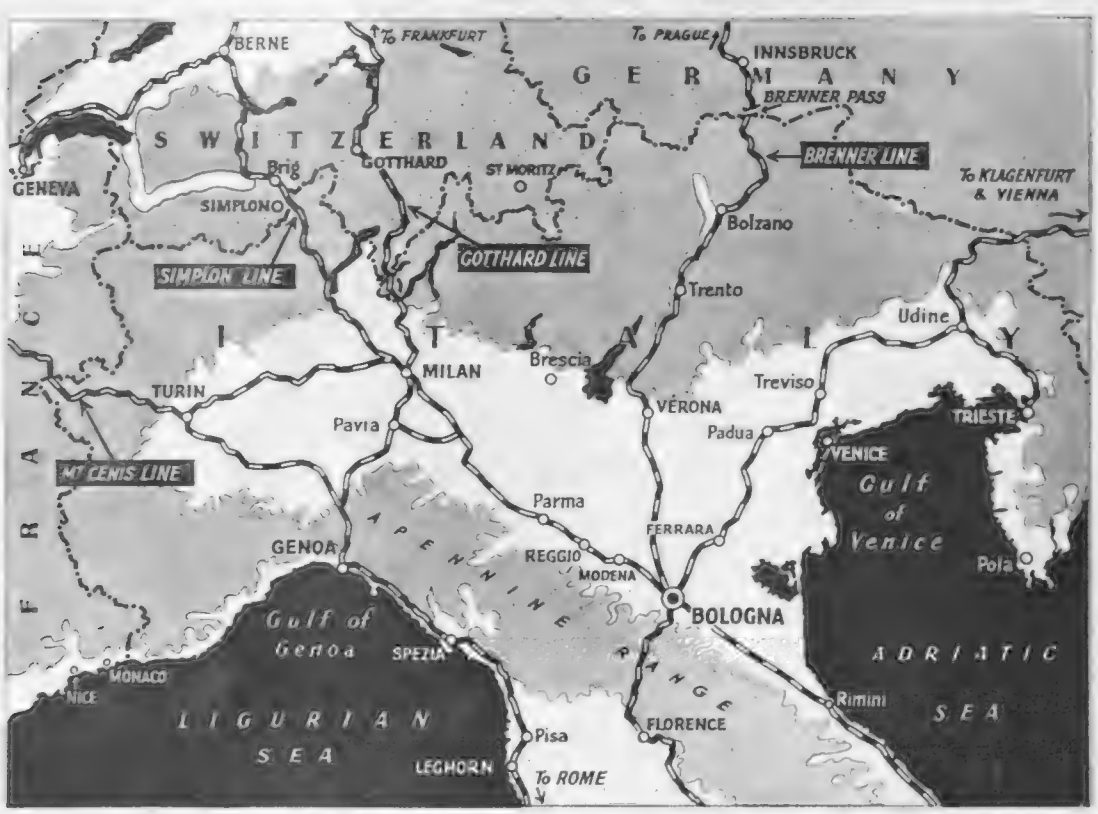
HOW GERMAN REINFORCEMENTS WERE RUSHED TO NORTH AFRICA BY AIR to reinforce Rommel's Afrika Korps and also to aid in the Axis defence of Tunisia (*See notes on left*)

ITALIAN STRATEGICS

ITALY, SICILY, SARDINIA—and their relation to the Tunisian fighting area, with distances by air and by sea. So far as the Mediterranean is concerned, the above area is the one of most significance in connection with air and sea operations. With Sardinia but 140 miles distant from Tunis, and Sicily only 150 miles away, the Axis are in a favourable position. By virtue of the number of air bases encircling the narrow Sicilian Channel, and owing to the strategic positions of Pantellaria and Lampedusa Islands, the Axis at present control the approaches to Malta and the Eastern Mediterranean



THE BOMBING OF NAPLES: The harbour and moles of this great Italian naval centre as seen from above the Castle of St. Elmo and looking towards Vesuvius and the south—*Drawing by Percy Home*



Italy figured to a marked degree amongst the bombing targets for the month of December: Turin, Milan and other northern cities felt the weight of the R.A.F. operating from Britain. And, in the south, Naples also came in for a two-way attack: Middle East bombers, operated by the U.S. Air Forces, blasted the docks and shipping by *daylight* (a form of attack in which they seem to specialise!), whilst British-based bombers made onslaughts by night after crossing the Alps and flying down the length of Italy. In doing so, the R.A.F. crews risked the dangers of ice, snow and electric storms to create damage and destruction to shipping and vital targets in this area and to cause consternation in the hearts of the Italian people.

Hits on various moles were observed by the U.S. pilots: vessels were bombed and large fires started, some of which could be seen 30 miles away. The Royal Arsenal area was also bombed, and fires were started at a power station and at the Central Railway Station. The Arsenal lies between the Castello del Ovo and the Molo San Vicenzo, a long harbour arm which encloses the Porto Militare.

Overlooking the latter rises the imposing mass of the Castello Nuovo: a little farther away is the Porto Grande, where visiting liners used to put in. From this point the scene is dominated by the gently smoking cone of Vesuvius Away to the north rises the hill on which the battlements of the Castle of St. Elmo look down on the city, which occupies an area of flat land extending southwards to the lava slopes of Vesuvius. Two big thoroughfares—the Via Roma and the Strada dei Duomo—penetrate the heart of the city, as indicated in the drawing above

ONE OF THE SOFTEST SPOTS IN THE WHOLE OF ITALY: The town of Bologna and its railway bottle-neck. In discussing possible targets for the Allied Air Forces in Italy, Bologna should not be overlooked. In a country where communications are not too good, dislocation at this particular spot would probably upset the whole economic structure of Mussolini's so-vulnerable kingdom. Owing to the bombing of the industrial regions around Genoa, Turin and Milan, Italy is now looking to the south. At Bologna is the key point of the whole railway system of the country—for here five main lines meet: disruption at this point would mean disaster, were it prolonged. The railway along the west coast could not carry the necessary traffic to keep the country's industries going. For these need hundreds of trains a day, the great majority of which must pass through Bologna. It may be that at the moment this town is beyond our effective bombing range; but as new areas are cleared of the enemy, Bologna and its railways may well come within the bombing programme of the R.A.F. and the U.S. Air Forces

On right—
WHERE SICILY'S MANY AIRFIELDS ARE LOCATED. It has been stated that on this island the Italians have built twelve aerodromes and five seaplane bases, as well as a number of emergency landing-grounds. Where these are located are shown in this map. At the moment the Germans are in almost complete possession of the island; and it is from here that much reinforcement of Tunisia has been made possible during the fighting of the past week

U.S. BOMBERS VERSUS THE JAPANESE NAVY: The sinking of a Jap warship (probably a cruiser) and the loss by fire of three other enemy vessels after a heavy American bombing attack in the Solomons, as seen by U.S. Marines from their defence positions on the shore—*Drawing by E. Byatt*

The U.S. MARINES on GUADALCANAR

Two Drawings of the American Campaign in the Solomons

During the recent fighting in the Solomons it has become apparent that the struggle is now becoming one of Air versus Navy. The only hope the Japanese have of getting desperately-needed reinforcements and supplies to Guadalcanar is by risking a joint naval-and-air action. The incident depicted above is an illustration of the tremendous hitting power which the Americans have built up in the shore-based Air Force on the island. In this engagement one Japanese warship (probably a cruiser) was sunk after two hits were scored by 1,000-lb. bombs, and it is almost certain that three other vessels were also sunk: they blazed all through the night, clearly visible to the U.S. Marines in their positions on the shore. At one time the air forces on Guadalcanar were so short of fuel that they were down to one day's supply! But now the U.S. Air Force is so strong that any ships of the Japanese Navy challenging the American Fleet there must bring their own "umbrella" of carrier-borne fighters if they are to have even a partial success. Meanwhile, the Japs left on the island are known to be in desperate need of fresh supplies, the only food which they can obtain on the island itself being coco-nuts!

THE FIGHTING BY LAND ON GUADALCANAR ISLAND: The U.S. Marines hold the Japanese in the area surrounding the airfield; this vital objective the enemy have, as yet, been unable to recapture—*Drawing by Douglas Macpherson*

On all three sides—west, east and south—the U.S. Marines on Guadalcanar have held off all Japanese attempts to regain their lost aerodrome. The enemy seem, for some reason, unable or unwilling to write off their loss here.

On the island's western front the Japs have been held in the river area, where the dense jungle is broken in part by grassy tracts: here Japanese infantry have tried to infiltrate into the American positions, and constant watchfulness has been the only guard against these experts in camouflage and tree-climbing. Their tactics are, however, now understood and countered.

In the drawing given here, American 75-mm. pack-howitzers are seen in action in this area. The vicious little guns, easily portable, are capable of lobbing a heavy shell over a great distance. The "meadow" is one of those characteristic, swampy flats which run down to the chief rivers. In the dry season, these can carry traffic.

The howitzers are firing over the Manikau River, in a westerly direction. This river was for long the western boundary of the American position; the ridge seen on the left is doubtless one which the Japanese reached in an abortive counter-attack some time ago. In the foreground, a U.S. force is watching the standing grass and trees to the right, from which a shot has come. A spray of rapid-fire bullets may bring down a sniper concealed in the tree-tops or in the long grass

FLYING BOMBERS ACROSS THE ATLANTIC

How the Ferry Command Operates its Wonderful Ocean Crossings

ONE doesn't hear much about Ferry Command. It works silently behind a screen of secrecy and Atlantic mists. But day after day a stream of Lockheed Hudsons, Liberators, Fortresses, drones along the secret air routes linking America and Britain.

They 're flown by the world's foremost airmen. Each of Ferry Command's several hundred pilots is hand-picked. The North Atlantic offers difficult flying conditions, and a candidate for "F.C." must boast at least 750 flying hours before he 'll be trusted to pilot a valuable bomber and its equally valuable crew, a load of vital war materials and perhaps an Allied Minister across 2,300 miles of heaving ocean. Once accepted, the recruit returns to school for a four-weeks course, and approximately one-third of all trainees get no further than school. They fail to stay the course. The remainder take an oath of secrecy, sign articles binding them to physical fitness and obedience. They 're ferry pilots, and until Hitler is beaten each will make three west-to-east Atlantic flights per month, taking an enforced rest after every fifth crossing.

AIR CHIEF-MARSHAL SIR FREDERICK BOWHILL (who left Coastal Command to take over Ferry Command) had just flown the Atlantic when this picture was taken

The first trip is usually as co-pilot Next time, perhaps, the recruit will be captain-pilot. He 's given a Hudson With a cynical grin he 'll say: "A Hudson, you see, costs only £15,000 against £80,000 for a Liberator . . . !"

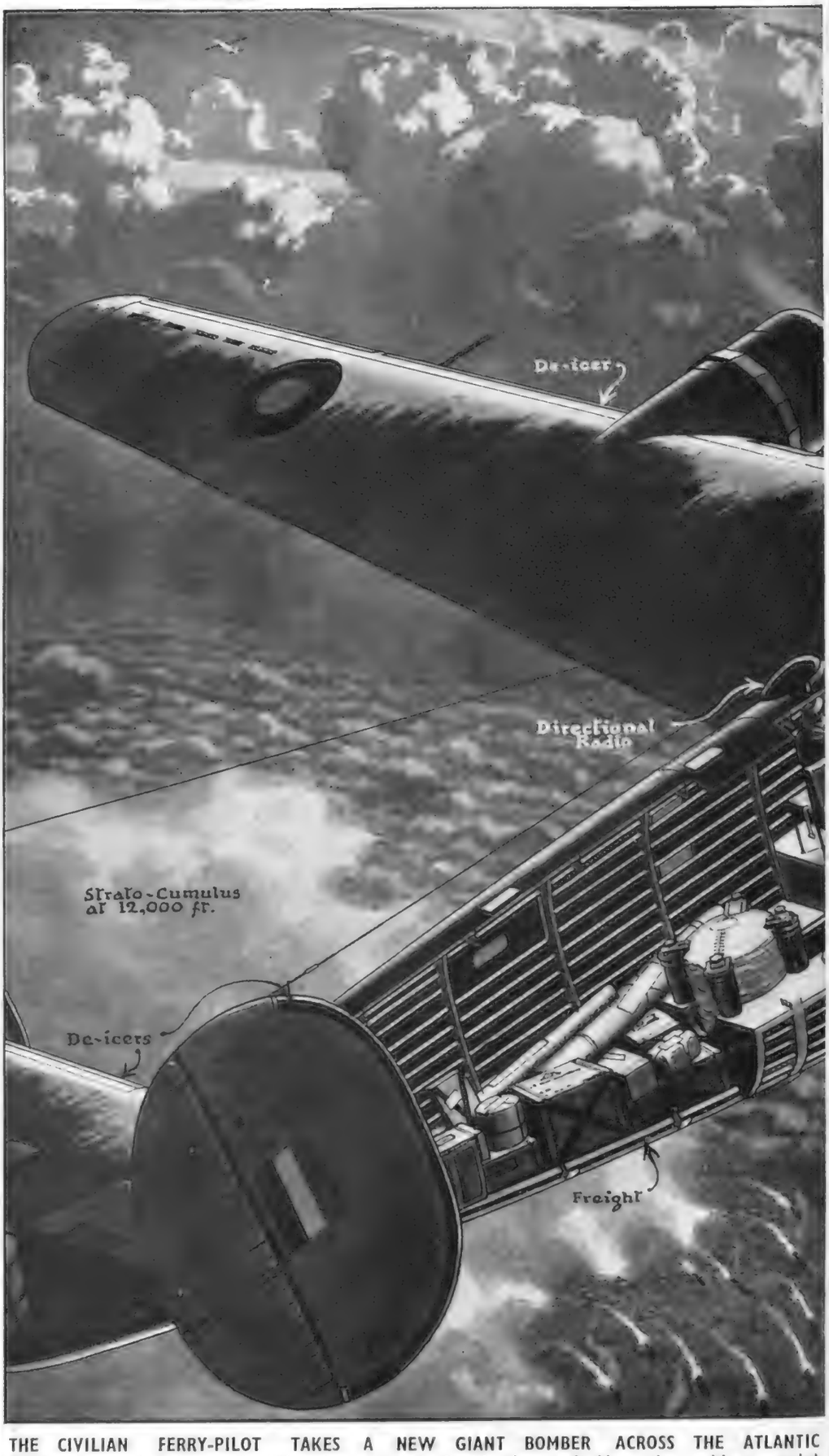
Just before the take-off, pilot and co-pilot check over instruments. The radio operator takes bearings; the flight-engineer cocks an ear towards throbbing engines. The navigator taps his captain's shoulder. "O.K." His skipper grins: "O.K. Radio silence."

The Hun has long ears. It 's told how he answered a Liberator's request for bearings with false ones designed to bring the bomber near the French coast! So the radio is only used to signal progress to Canada from prearranged points, and at a certain hour during the night a British radio station takes over.

Weather usually deteriorates after dark. Watch for signs of ice. Wings shine; there 's a crackling against the windows.

"Frost crystals! Climb." The pilot, with over 3,000 hours' flying experience, keeps eyes glued to instruments showing carburetter and air temperatures. He increases the heat round carburetters to defeat ice. The plane climbs steeply towards drier air as rime forms on shining wings. It gets cold. Colder. "Oxygen," orders the pilot, adding, "11,000 ft."

He hands over to his co-pilot, goes the rounds of the crew to see they 're all right. One trip, the crew heard strange sounds from the tail. Investigating, they found their passenger singing noisily, struggling to rise—"drunk as a lord"! His oxygen mask had come adrift while he slept, and he had to be tied down until he 'd recovered from the effects of rarefied air!



THE CIVILIAN FERRY-PILOT TAKES A NEW GIANT BOMBER ACROSS THE ATLANTIC to climb over the big cumulo-nimbus barrier which lies in front of him: the position occupied

CAPTAIN McCAULEY, a cross-Atlantic pilot, at the controls of a Liberator. He is wearing his oxygen mask, "parka" hood and the cold-weather kit worn on 20,000-ft. crossings. *On right*—A FLYING FORTRESS JUST AFTER ITS ARRIVAL IN BRITAIN FROM THE UNITED STATES

Drawing by S. W. Clatworthy (Artist's Copyright in the U.S.A.)

FOR DELIVERY IN BRITAIN. HE HAS REACHED THE "POINT OF NO RETURN" after which he *must* go on, no matter what happens. The pilot is just about by the official passengers is shown in the drawing—it is reached by the little tunnel forward of the seats which they are seen occupying during the flight

The ferry-pilots on the Atlantic service who are now bringing the big four-engined Liberators to Britain are always civilians—of very considerable experience. On their return flights to the U.S. they now return in Liberators which have been specially stripped for that service. The graduate pilots of the R.A.F., returning to Britain after their training, frequently bring over the smaller two-engine machines; and the second pilots of the Liberators are also usually R.A.F. men. The flight to Britain also counts as the navigator's "passing-out test." On the transatlantic flight, use is usually made of the auto-pilot, which is housed just in front of the cockpit. Official passengers only are ferried out and home, and they have to endure cold and spartan conditions. The extra fuel, in collapsible tanks which can be packed and returned empty, is used up first: any remaining space in the aircraft is stuffed with suitable urgent freight. During the passage over, considerable height is maintained, as at the higher levels the weather vagaries are fewer. Often the vast ocean is scarcely seen, and low clouds (as indicated in this drawing) sometimes blanket it over completely. Strato-cumulus is flown over, or skirted: it is bumpy and increases icing-up. The great cumulo-nimbus barriers, such as are depicted above, must be climbed over, and may only be discovered quite suddenly on murky nights. Directional radio is available to check the position of the aircraft for some distance at each end of the flight

The navigator taps his skipper's shoulder again. "Point of no return." No matter what happens now, there 's no turning back: the bomber carries only sufficient petrol to reach Britain. It roars on.

Dawn. The great machine drops through clouds. Oxygen masks are removed. Look-outs watch for another danger—enemy planes, for they 're in the "Combat Zone."

Another cry: "Land!" Passenger and crew crowd windows. The lad with the Aldis lamp, ready to flash recognition signals to trigger-fingered A.-A. gunners, has a lump in his throat. He will not be returning to Canada. Like the navigator, he 's flown 2,300 miles to join the R.A.F.

Among the fields is hidden an aerodrome. The navigator grins. "We 're here, skipper." Another American bomber has arrived!

F. Illingworth

MID-WINTER IN THE NORTH ATLANTIC: A BIG SEA STRIKES H.M.S. "NORTHERN SPRAY," naval escort trawler, during a gale on her fourth day out from Rey from Iceland. A terrific sea struck the vessel, causing her to lie over on her beam for fifteen minutes. The ballast and coal shifted, all the lights went o was flooded to 5 ft. (See notes below)—*Drawing by Montague Dawson*

Two naval officers recently had the extraordinary experience of swimming to safety out of the wardroom of their ship when they were hit by exceptionally heavy seas in the North Atlantic.

"It happened on our fourth day out from Reykjavik on the worst night of the gale," said one of the officers. "A terrific sea hit us and the next thing I knew I was instinctively swimming towards the open. The water fell away fairly quickly, but we were actually swimming indoors."

"The wave wrenched our heavy iron stove from its bed of concrete and hurled it 8 ft. across the room on to the settee," the officer went on. "We lay over to port in a sickening list for fully fifteen minutes. Up on the bridge they were clinging to the binnacle and fixtures to keep their feet."

The giant wave caused damage throughout the trawler. Ballast and coal shifted. On the mess decks all the lights went out, and men off watch scrambled from their hammocks in the darkness with water pouring down on their heads. "Our top bridge is 40 ft. above the deck and the sea smothered it," said the officer. "Looking aft the Commanding Officer could not see any trace of his ship."

On the night of December 1-2, light forces under the command of Rear-Admiral C. H. J. Harcourt, C.B.E., engaged an enemy convoy bound for Tunisia, and sank four ships of the convoy and two of the escorting destroyers.

The convoy had previously been sighted by air reconnaissance during the day. On being attacked, it scattered and made smoke. Later in the morning, our force, whilst returning to its base, was attacked by both enemy dive-bomber and torpedo-carrying aircraft. H.M.S. *Quentin* was hit and sunk; but the majority of her company were rescued.

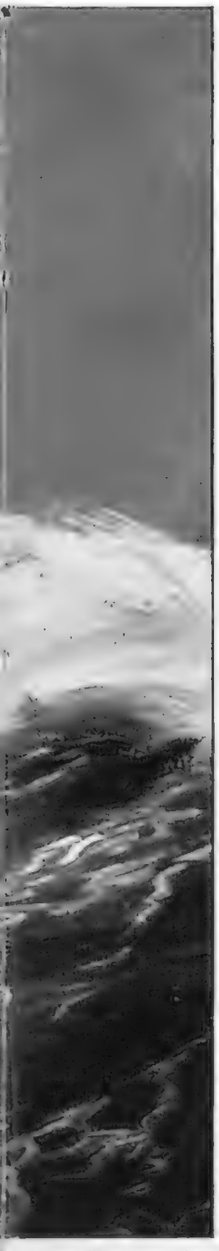
The vessels taking part in this brilliant action were the three cruisers *Aurora*, *Sirius* and *Argonaut*, and the two destroyers *Quiberon* and *Quentin*. H.M.S. *Aurora* was built at H.M. Dockyard, Portsmouth. She was launched on August 20, 1936, and completed on November 12, 1937. She took part along with *Penelope*, *Lance* and *Lively* in the annihilation of two Italian convoys in the Mediterranean on November 9, 1941, when ten supply ships were destroyed, and three Italian destroyers sunk and two others seriously damaged. H.M.S. *Sirius* was also built by H.M. Dockyard, Portsmouth. H.M.S. *Argonaut* was built and engined by Cammell Laird and Co., Ltd., Birkenhead. H.M.S. *Quiberon* and H.M.S. *Quentin* were built and engined by J. Samuel White and Co., Ltd., East Cowes.

SHIPS OF THE ROYAL NAVY INTERCEPT AN AXIS TROOP CONVOY BOUND FOR TUNISIA A centre the cruiser "Sirius"; "Aurora" is to the right of the drawin

WINTRY WEATHER ON THE HIGH SEAS

—And Actions by Sea and by Air, by the Royal Navy and by the Fleet Air Arm

—Special Sphere Drawings



kjavik whilst returning
it, and the Wardroom

A GREAT OCCASION FOR THE FLEET AIR ARM: AN ALBACORE TORPEDO-DROPPING AIRCRAFT ATTACKS AND SINKS A GERMAN U-BOAT—the first occasion on which a submarine has been sunk by an aircraft torpedo—*Drawing by Wm. McDowell*

On December 3, in the House of Commons, the First Lord of the Admiralty described the incident which forms the basis of Mr. McDowell's drawing above. "A German U-boat was sighted and attacked by Hudson aircraft of the Royal Air Force, forced to surface and disabled," he said. "The Hudson then had to return, but the news was passed to one of our carriers, whose aircraft were immediately on the track. The submarine was sighted on the surface by an Albacore and sunk by a torpedo from that machine. *This is the first occasion on which a submarine has been sunk by an aircraft torpedo.*" The Fairey Albacore has proved that the unfashionable biplane has very definite uses in the Fleet Air Arm—largely due to its capabilities in carrying heavy loads for a small wing-span, and the ease with which it can take off from the flight deck of an aircraft-carrier

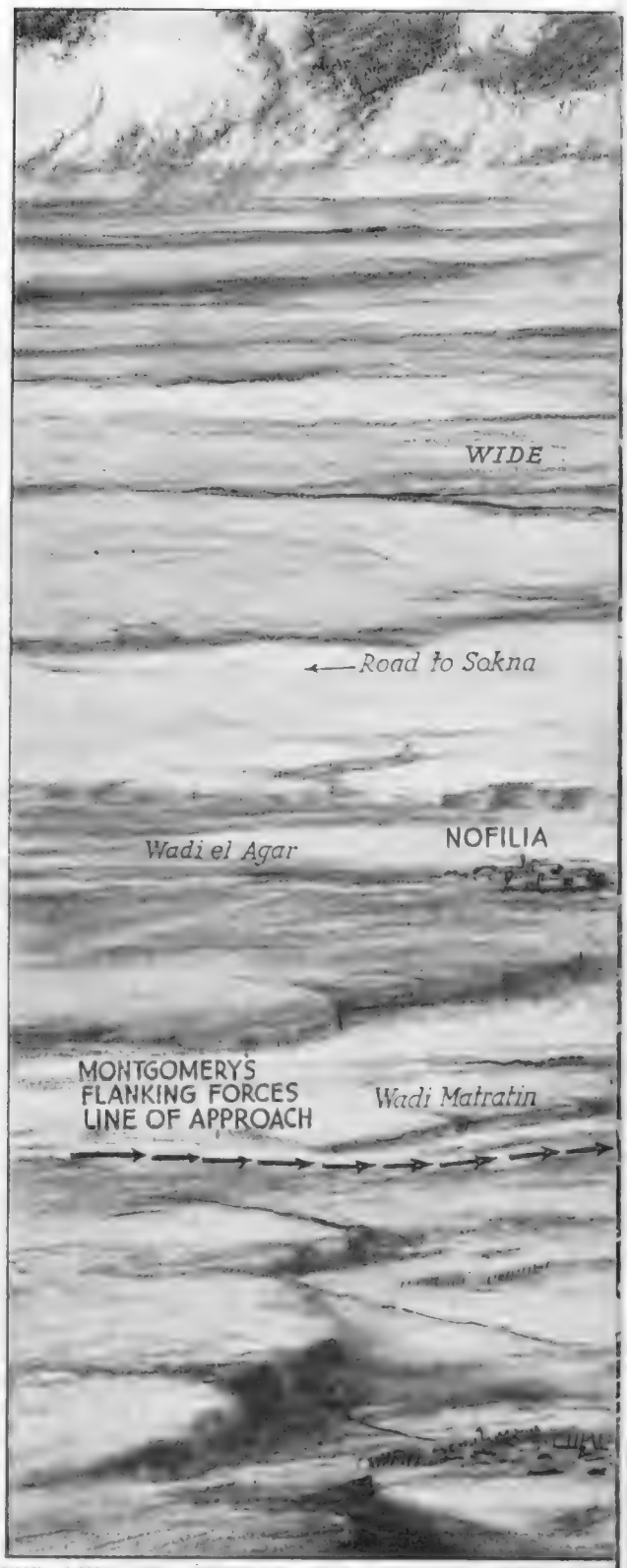
ND SINK FOUR OF THE ENEMY SHIPS AND TWO DESTROYERS. The brilliant action is here seen in progress: on the left is the cruiser "Argonaut"; in the g, supported by the destroyer "Quiberon," whilst at the far right is the destroyer "Quentin" (See story on left)—*Drawing by Wm. McDowell*

THE "BALBO ROAD" IN TRIPOLITANIA

Along which Rommel is Retreating, and where His Rearguard Panzers were for a Time Cut Off by the Eighth Army at the Matratin Wadi

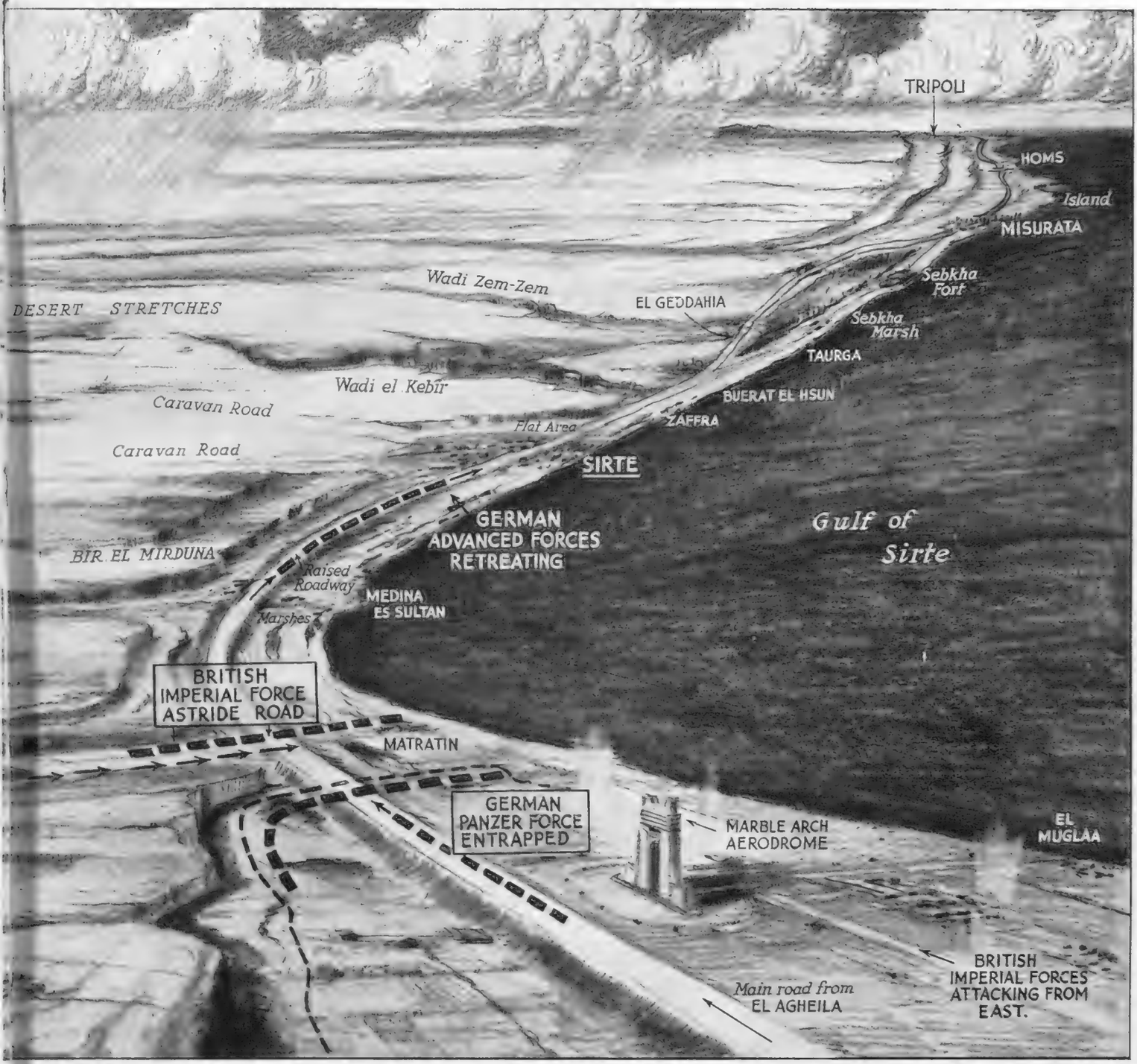
TYPICAL DESERT COUNTRY, SHOWING HOW THE NARROW ROAD RUNS OVER THE SANDY DUNES, with places for vehicles to pass built out on spurs at intervals

The road which runs westwards from El Agheila towards Tripoli is not a broad highway throughout its length, despite its grand title and despite the impressive photographs of portions of it circulated by Italy before the war. Although there are stretches which are well metalled and of elaborate construction, other sections are narrow and difficult, with a clear way for only one line of transport. The road follows the sea : and it is the only practicable route for heavy vehicles through the Sirte Desert. With heavy bombing from the air at strategic points, the "Balbo Road" may prove as disastrous for Rommel's fleeing forces as was the coast road from El Alamein to El Agheila



THE LINE OF RETREAT FOR ROMMEL AND HIS which shows the Wadi Matratin, where

IN THE HEART OF THE TRIPOLITANIAN DESERT : Near Nofilia is a junction of roads, one coming up from the desert, the other running east to west along the coast—the "Balbo Road." Everywhere are the dry, sandy stretches. Nofilia, tiny spot as it is in the vast immensity of sand, has a strategic value for the retreating Rommel troops, and it has therefore been a conspicuous target for R.A.F. bombers



AFRIKA KORPS: THE "BALBO ROAD" ALONG THE COAST OF THE GULF OF SIRTE from El Agheila to Misurata (and thence on to Tripoli). A special diagram the rearguard of Panzers was for a time trapped by General Montgomery's flanking move from the desert to the south—*Drawing by Percy Home*

When Rommel decided not to hold on to his strong defensive positions at El Agheila (which twice before had provided the Axis with a rallying-place), there was only one route open to him towards the west. This was the western portion of the long "Balbo Road," which runs along the sea through Sirte towards Misurata and then on to Tripoli.

This is only part of the Great Coastal Highway, an ambitious undertaking of 1,200 miles from the Tunisian to the Egyptian borders. It was completed in 1937 by Marshal Balbo, at a time when—the "pacification" of Tripoli having been completed by General de Bono and Marshal Badoglio—Italy was trying to impress the outside world as a great colonising nation. In point of fact, the road is only a really good one at certain points throughout its great length. At other places, it is still largely a rough track running through the sandy desert—narrow in places, with room only for one line of traffic.

This is demonstrated by reports from the pilots who are engaged on the task of bombing the retreating columns. "Every time one truck in the German procession is wrecked, those following it are held up while it is being shifted off the road," runs one report. It is not possible for heavy vehicles to leave the metalled road along the Gulf of Sirte owing to the treacherous nature of the great sandy desert through which the road runs.

The diagram above shows the road from Marble Arch to Misurata: it also shows the brilliant outflanking movement which General Montgomery carried out against the rearward portions of the Afrika Korps at the Wadi Matratin.

A section of the Eighth Army, of all arms, struck 30 miles south from behind Mersa Brega and then swept west to the wadi across 100 miles of treacherous, deep sand and rocky desert. Then they came up the wadi northwards to the coast. The advanced units cut in among Rommel's fleeing columns on the Balbo Road, 60 miles to the west of El Agheila. The trapped force were all Germans—members of the Afrika Korps itself: their job was to cover the retreat of the fleeing enemy in rear-guard actions.

ALONG THE BALBO ROAD TOWARDS TRIPOLI: Modern buildings near the "desert fortress" of Nofilia. This impressive group of buildings was erected during the Balbo period, when Italy set out to colonise her newly-won North African "Empire." It was inspected by Mussolini during his tour of Tripolitania in 1937

THE NEW RUSSIAN TANK-SKI TACTICS: White-painted tanks carry white-garbed ski troops tightly packed on the top. The tank units then work round to the rear of the German positions and thus "tame" the enemy's "hedgehog" positions. These Soviet skiers sometimes travel all through the bitter winter night, and in snowstorms, to get to their objectives—*Drawing by L. Ashwell Wood*

TANK TACTICS IN THE SNOW

—As Carried out by the Red Army

The new tank-ski tactics of the Russians have been patiently elaborated by a special staff which has been formed to maintain a higher standard of offensive mobility this winter than last. Here is a description of how the tactics are applied in actual operations: it is taken from a War Correspondent's report—"The local commanding officer loaded the sides and tops of his tanks with a picked ski battalion, packing them as tightly as they could hang on the hand-holds or to each other. He sent this force in a wide arc, at first to the rear, over awkward terrain full of tank pits recaptured the previous day. Throughout the night they drove on through blinding snow. Then suddenly they ran into a small column of German infantry on the march. But the half-numbed skiers jumped from the tanks, and with their tommy-guns worked around the rear of these Germans while the tanks crashed straight into them. Now came the roughest passage of all—along the peasant track through a dense forest, where the ski-men had to clear the way for their tanks, quietly removing fallen trees, as well as scouting ahead, for success depended on surprise. The Russian tanks crashed into the stronghold from due west instead of due east, from which the local German command was still expecting one more attack to come. The ski-men, with tanks providing the necessary fire-power, then fought off counter-attacks until the main Russian forces came up to consolidate this tamed 'hedgehog' position"

WINTER CLOSES IN ON THE RUSSIAN FRONT AND THE SOVIET SOLDIERS ASSUME THEIR CAMOUFLAGE OF WHITE. A picture just received in London, showing Russian light-artillery men handling their guns along a frozen road whilst the ammunition is hauled along on sledges. Winter is now fast closing in on all sections of the front and the Nazis—less accustomed to the bitter weather than the Russians—are finding increasing difficulties in maintaining communications with their hard-pressed forces around Stalingrad. Transport planes are being used in large numbers, but the Russians are taking a heavy toll of them

BATTLES MILES ABOVE THE EARTH

Recent Developments in High-flying Fighter Aircraft

Described by B. TUNBRIDGE

IT is little over twenty-five years since the first air battles were fought, but since that time speed, armour and tactics have all undergone revolutionary changes. Then there was not the same difference between fighter and bomber aircraft, and battles, usually well within sight of onlookers on the ground, occurred at short range.

To-day all this has changed. The heavy bomber, carrying its load of tremendous destructiveness, is built to fight its way through to the target. In long-range operations, such as recent attacks on Italy from this country, Britain's latest bombers push on through fighter opposition without the aid of screening Allied fighters to "mix it" with those of the enemy.

IN AMERICA, TOO, STRATOSPHERE FLYING IS BEING DEVELOPED. This picture was taken at Kelly Field, Texas. It shows two pilots about to head for the stratosphere in the newest of high-altitude masks. These look frightening, but they are practical and effective. They cover the entire head and face; being made of plastic materials, they protect the head against fire as well as the rarefied atmosphere

How are these swift air battles fought, when a heavy bomber meets attacks from fast-flying fighters far above the clouds?

During the Great War fighters relied for their winning tactics on their greater ability to manœuvre in tight circles when engaged on attacking the bombers. The skill with which the pilot carried out this form of attack enabled him quickly to recover his position and come back at his foe, time after time. With greatly increased speed and the risk of pilot "black-out," the tight-circle manœuvre is less possible. New tactics have been evolved, and the fighter now follows a more organised scheme than in the days when single-handed combat was the rule. Speeds of both fighter and bomber have presented our airmen with new problems.

In the years before the war one of the impressive sights of Hendon air pageants was the aerobatic performances of skilled pilots. These loops, spins, rolls and other often fantastic individual manœuvres looked very impressive from the ground, but many people may have wondered what use there was in such apparent risk to life. Not all of the stunts that were practised in those days later had an influence of the tactics of the men who saved us during the Battle of Britain, but still some of the skill acquired for the amusement of thrill-hungry crowds was very useful in teaching the *Luftwaffe* that Britain's airmen were far from decadent.

For the lone fighter flying his craft in quest of enemy bombers the job of keeping his plane in the air must be automatic. His attention is mainly focused on searching the sky and keeping a careful watch for his foe or a fast-moving enemy fighter which may settle down on his tail and attack without warning. Because of the high speed of modern fighter craft, pilots usually leave fairly wide distances between their planes. This provides greater scope for manœuvre and lessens the dangers of anti-aircraft fire.

In the defence of Britain, it has not been usual for fighter squadrons to maintain sky patrols. This technique would be very wasteful in man-power, and there would always be the danger that when the attackers arrived the time coincided with that when the short-range defenders were grounded for refuelling. In place of the patrol, squadrons stand by on the airfields, ready at a moment's notice to take the air when danger threatens.

Once the fighters have gone into the air they are instructed as to course and height for interception from the ground by radio telephone. Once the attackers have been sighted, however, the fighter leader takes over command, and his cryptic orders come through the radio telephone. Usually, the force splits up and carries out the methods of attack already planned.

A favourite form of attack carried out by a flight of three planes makes use of the dazzling rays of the sun. On seeing the enemy bomber the three planes get into position so that one is flying with the sun immediately behind him. The other two take up positions so that they can distract the bomber crew by flying into attack from below and behind. These two keep the bomber busy, but it is usually the first plane, coming in at an angle that temporarily leaves the bomber's gunner blinded, which makes the "kill."

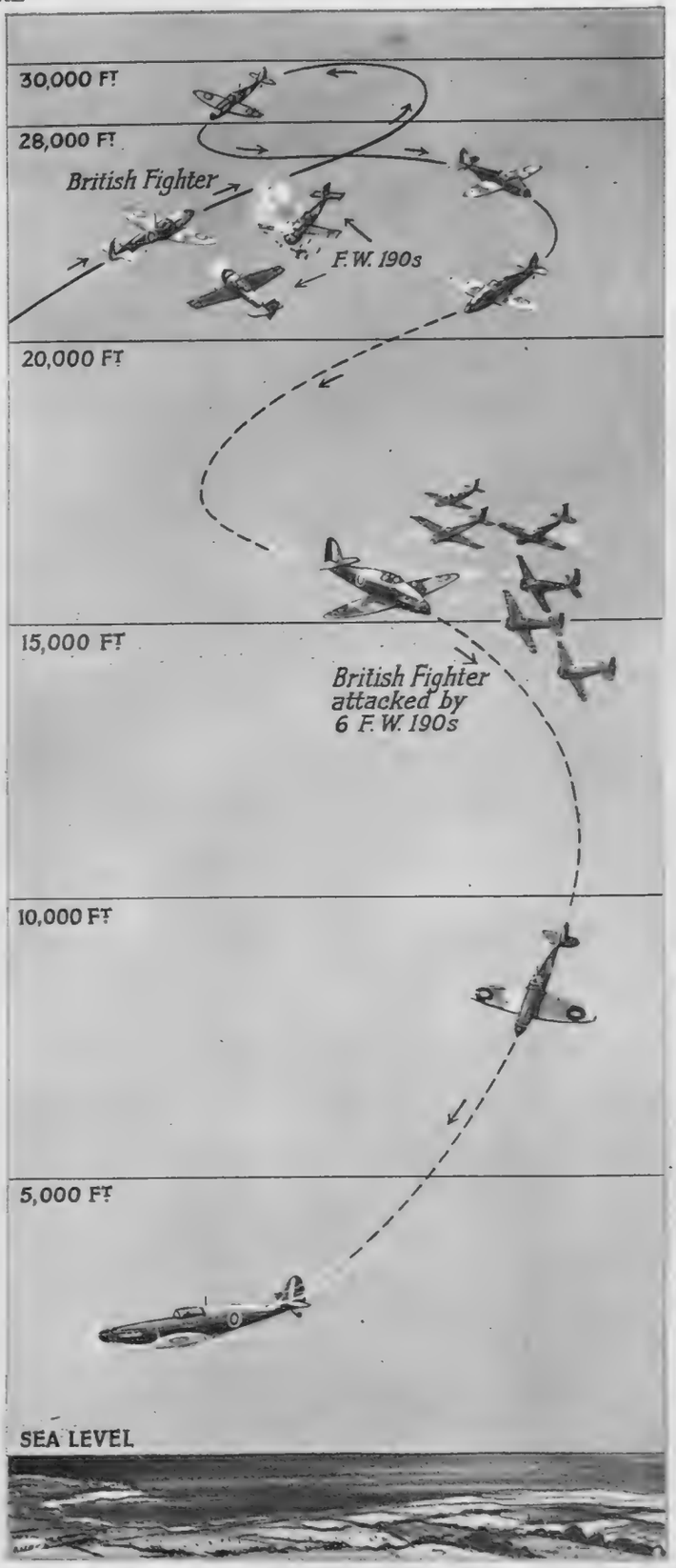
Another method of attack by a flight of fighters, quite often used when in an encounter with fast bombers, provides plenty of scope for individual skill. The leader of the flight swoops down on his prey from above and behind. The second fighter also swoops from above, but he attacks across the bomber, flying a course from left to right, and almost skimming the top of the enemy fuselage. The third, in the meantime, comes up from below and keeps turning and worrying from back to front of the bomber as it makes the peak of its climb just under the belly of the harassed raider. All these manœuvres last for a very short time, and attacks from above and below come alternately from different sides, involving the closest turns that can be made with safety to the pilots.

In fighter versus fighter combats, methods of attack are somewhat different. When numbers are engaged on each side, formations have to be broken up before the individual dog-fights start. Thus a squadron of three flights will operate somewhat along these lines. The first flight will zoom down on to the enemy from behind, whilst another flight attacks from below. The third flight comes in from below on the other side, and it is usually not long before the formation becomes ragged, and individual fights which test the pilots' man-to-man skill result. Another tactic had for its object the aim of picking off the leader to disorganise the attack.

An early problem of bomber defence was the fact that most of the heavy planes had "blind spots." This meant that there were certain angles from which attack could be made and against which the bomber had no guns to counter. For instance, directly behind the rudder of a single-rudder machine gave a line of fighter approach which the gunner could not protect without shooting off his own tail. Gun turrets and new positioning of modern armaments have limited this difficulty, and the success of the designers' efforts has been demonstrated by the way in recent months bombers have been able to take very good care of themselves in the air. A probable reason for British success in this matter is the fact that many of the *Luftwaffe's* planes have vulnerable blind spots, which give our superior pilot-skill and fighter planes added opportunity to exploit their advantages.

Development of Britain's power-operated, rotatable gun turrets has been one of the great advances in air combat during this war. When first employed, our machines fitted with them were often able to fly alongside the German machines and shoot them down without the bomber crew being able to do anything about it.

Although the sharp turn of slower planes used during the last war is no longer possible, there is still a strong fighting point in the design of machines. The ability of the Hurricane to make a tighter turn than the Messerschmitt enables the British plane to get on its opponent's tail with much greater ease, and is probably one of the reasons why the *Luftwaffe* had to change their tactics several times during the Battle of Britain.



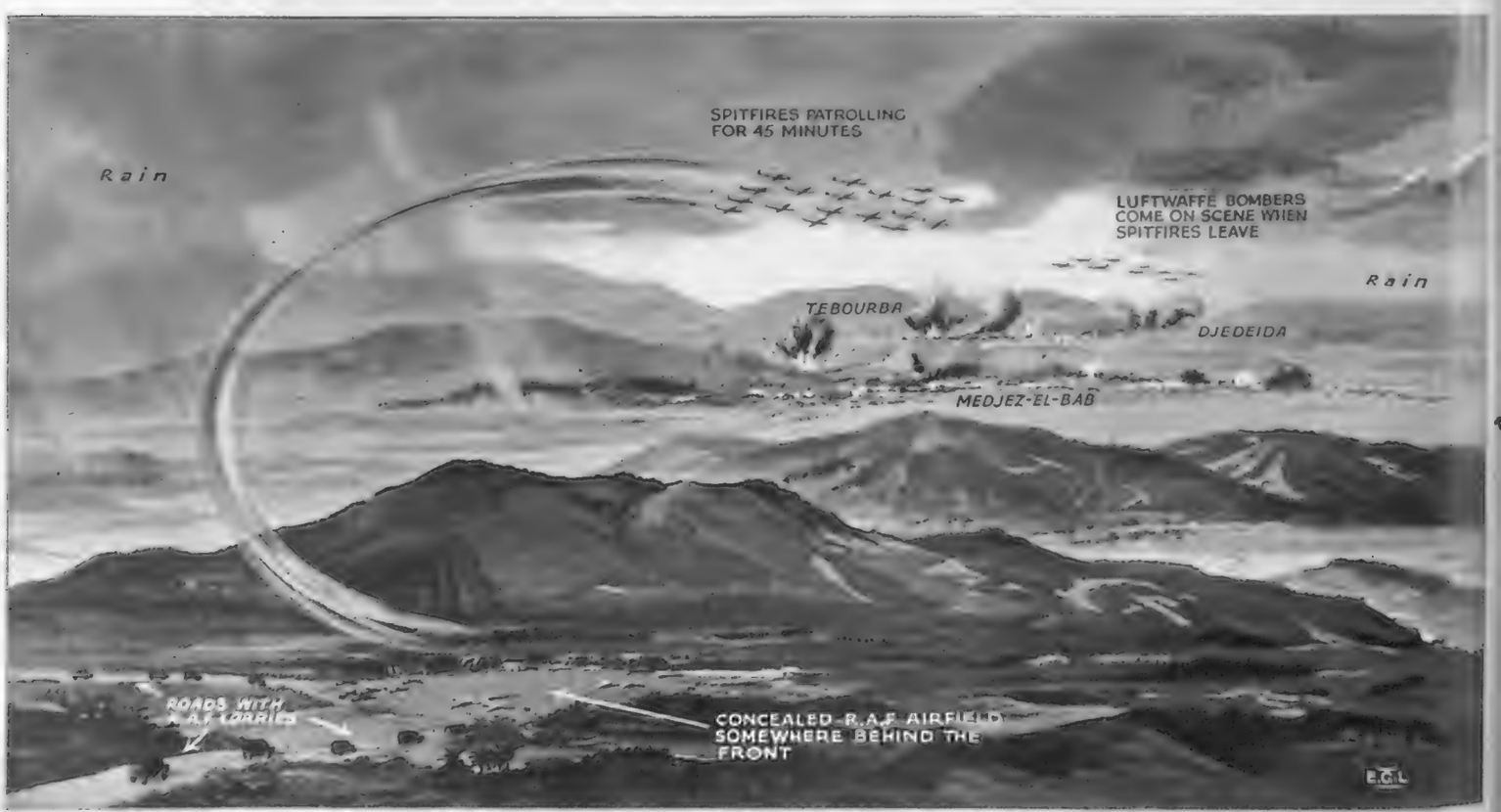
AIR COMBATS IN THE HIGH HEAVENS: The experience of one British flying officer in a fight from 28,000 ft. down to sea-level

On right—Air combats now sometimes take place in the 30,000-ft. zones, high above and remote from the earth. Here is depicted a recent encounter in which a detached British flying officer took part. He had been on an offensive patrol over the occupied coast when he became separated from his squadron. He thereupon climbed to a height of 28,000 ft., when he saw two F.W.s below him: diving to the attack, the flying officer saw large pieces of engine cowling fly off one enemy machine. On his way down to rejoin the squadron he met six more F.W. 190's at 15,000 ft., whereupon he promptly dived down to sea-level. He had to fight on the way down and, although his aircraft was hit in the engine, wings, ailerons and tail, he damaged one of his attackers and got home safely. The rest of the squadron, outnumbered by three to one, formed a defensive circle at 25,000 to 27,000 ft., and drove off the remainder of the attackers

INCIDENTS DURING the AIR-WAR OVER EUROPE and in the PACIFIC—*Special Sphere Drawings*

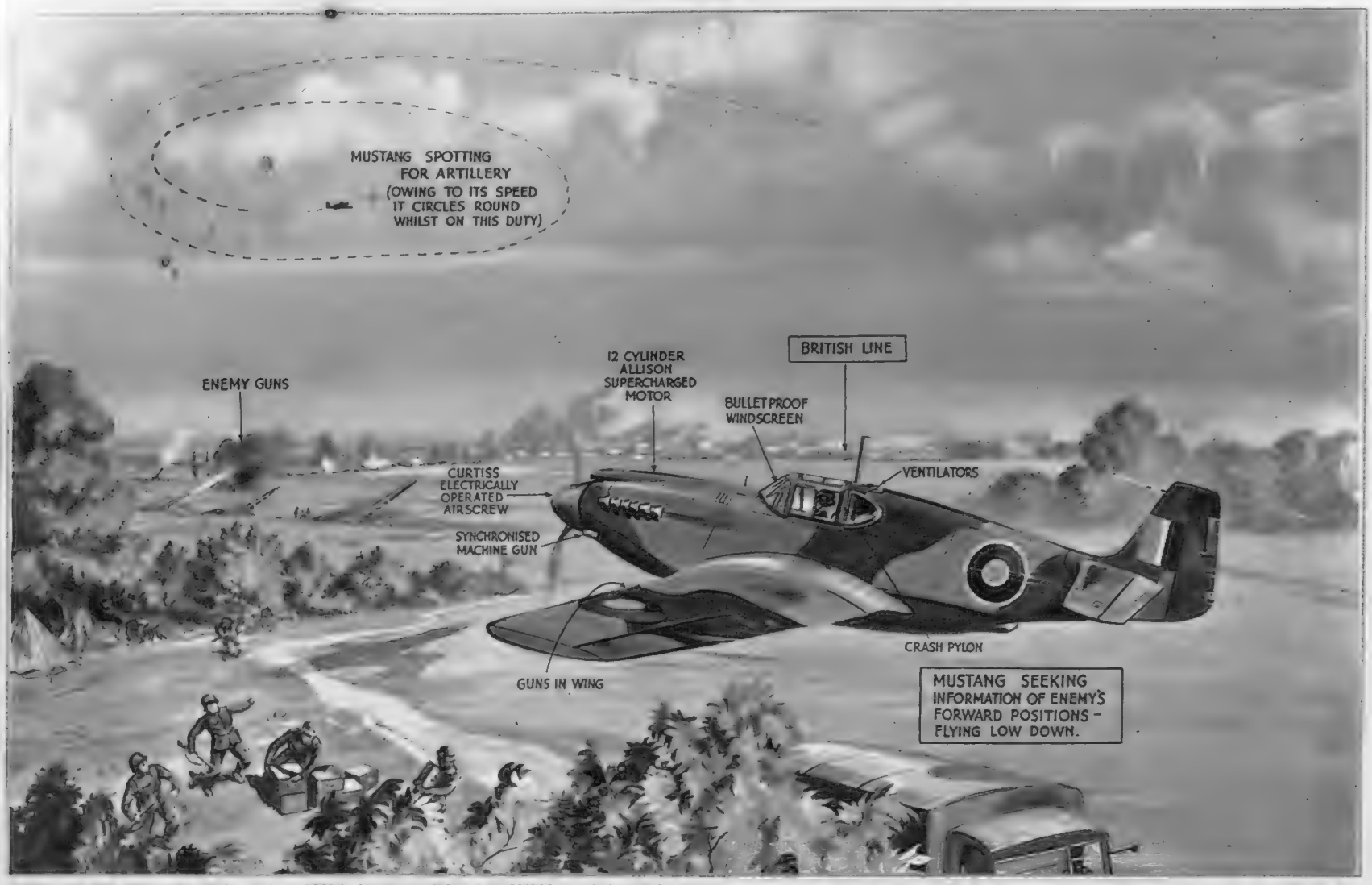
THE NEW LOCKHEED VEGA VENTURA, the latest light and fast bomber for the R.A.F. These machines took part in the great daylight raid on the Radio Works at Eindhoven, in Holland. Their armament is secret, but they are known to be more powerful than their brothers, the Hudson—*Drawing by L. Ashwell Wood*

The Vega Ventura is made by a subsidiary of the great Lockheed company which builds the well-known Hudsons and other powerful aircraft. In the raid on the Philips' Radio Works, the Venturas followed in after the Bostons and Mosquitoes: several of them were lost in the storm of light *flak*, but the others swept in over the target and bombed it with deadly accuracy. The new aircraft (Ventura means "Lucky Star") is a fast twin-engined machine which is powerfully armed: guns are carried in the nose and elsewhere and protect all the vital parts. Full details of armament, bomb load and performance, however, are still secret. The crew consists of four. In the summer of 1940 the Vega Company received a contract to build a number of these twin-engined bombers for the R.A.F., to the value of 30,000,000 dollars. In design, the Ventura is structurally similar to the Lockheed Lodestar, but is provided with specialised military equipment



RECENT GERMAN AIR TACTICS OVER THE TUNISIAN FRONT: The Spitfire can only provide cover for some 45 minutes; the Luftwaffe lies low until this period is exhausted and then swoops in to bomb our lines and communications—*Drawing by E. G. Lambert*

The Axis airfields at Bizerta and Tunis are only five minutes flying time from the battle area; whereas the British fighters, working from advanced Allied airfields, have to spend the greater portion of their flying time in getting to and from the fighting zone. Our Spitfires, therefore, have a strictly limited period for combat—about 45 minutes—and then must return to refuel and rearm. The *Luftwaffe* pilots refuse to take part in dog-fights with the R.A.F., but wait until the British fighters are returning to their base: then they try to jump in on them from the clouds, whilst the German bombers take the air as soon as our fighters withdraw, to hit at our unprotected lines and communications



"THE ARMY'S EYES IN THE AIR": ARMY CO-OPERATION MUSTANGS and how they will be used by the military High Command over the battlefield when the time comes for an invasion of enemy territory on the Continent—*Drawing by Roland Davies*

As the land operations of the contending armies become more and more intensified, so the work of the Army Co-operation aircraft becomes increasingly important. The drawing above shows some of the tasks on which our own Mustangs will be employed when operating over hostile territory on the Continent. One of its major jobs would be the securing of information concerning the enemy's forward positions: to achieve this the Mustang—a most manœuvrable and well-armoured type—would be flown quite low down, skimming over the trees and roads. A second most important task would be spotting for the artillery: to carry out this work the aircraft would be flown at a greater height. Owing to its speed, the Mustang would circle the target in the manner shown above, and record the accuracy of the land guns' fire by radio. The Mustang is America's newest single-seat fighter for the R.A.F. Its top speed has not yet been revealed, but it is thought to be around 400 m.p.h. It is probable that it is armed with six machine-guns, three in each wing

AMERICAN BOMBERS VERSUS JAPANESE FIGHTERS IN THE SOUTH-WEST PACIFIC: Ten Zeros shot down by American Liberators and Flying Fortresses during a bombing mission carried out by the latter near the island of New Britain—*Drawing by Roland Davies*

In this drawing Mr. Davies illustrates a recent encounter during the war in the Pacific. American Liberators and Flying Fortresses were on a mission over the channel between New Britain and New Ireland when they ran into a force of about fifteen Jap Zero fighter planes. The Americans immediately attacked. Ten of the enemy fighters were destroyed and four others were heavily damaged: but all the U.S. bombers returned. This is still another instance of the capacity of these big U.S. bombers to take on fighter aircraft—although originally not designed for such combat!

GUARDING AN ALLIED POSITION IN THE BUNA AREA: An Australian ground-defence unit operating searchlights during a night raid by Japanese bombers coming in from the sea. Note how the walls of the position have been constructed out of huge barrels filled with rock—*Drawing by W. G. Whitaker*

FIGHTING the JAPS in NEW GUINEA

A Series of Special Drawings of the Campaign

The Japs could always depend on a certain element of surprise for their raids on the Australian positions at Buna. Coming in from the sea as they did, it was not possible to receive much warning of the approach of the bombers. The Australians, however, had transported up to the coast a number of big modern searchlights: these they placed in the defence posts as shown above. Huge drums used for petrol were filled with rock and earth and placed as ramparts for searchlight operators and anti-aircraft gunners.

Below—Heavy guns cannot be taken over the Kokoda trail: yet heavy 105-mm. howitzers played a large part in breaking down the Jap resistance in the Buna-Gona triangle. This was because the guns which could not be transported over the jungle trails were finally *flown* in by big transport aircraft. Each gun was dismantled into a dozen parts before being flown across the Coral Sea in a Flying Fortress, together with a gun crew of eight and ample ammunition. At Port Moresby came a transfer to smaller aircraft able to cross the high Owen Stanley Range in a restricted area just behind the front line. These guns weigh 4,235 lb.—and each Fortress carries a 10,000-lb. load!

HOW THE AUSTRALIANS AND AMERICANS FLEW IN HEAVY GUNS TO THE BUNA-GONA FRONT BY AIR: U.S. howitzers of 105-mm. calibre were flown (with their crews) in Flying Fortresses from Australia to Port Moresby: then, in sections, by smaller aircraft over the "Gap" through the Owen Stanley Range to the north coast of New Guinea (*See* notes above)—*Drawing by E. G. Lambert*

FIGHTING TO THE DEATH IN THE LAST JAP STRONGHOLDS IN NORTHERN PAPUA: How the Australian infantry crawled up to the enemy positions to throw in their hand-grenades through the weapon-slits of the Jap trenches and "fox-holes" at Gona—*Drawing by E. Byat:*

After the Japs at Gona had been confined to an area about 300 yards long by 150 yards deep, they still would not give up—probably because the Emperor himself had sent forth word that New Guinea was to be defended "to the last man." The defences were honeycombed with machine-gun posts, which in turn were protected by riflemen's "fox-holes" and still further covered by snipers in the palm-trees. These machine-gun posts were built in slightly sloping ground, and had a weapon-slit 2 ft. 9 ins. long and 6 ins. high—just sufficient for one or two guns to operate. It was almost impossible to locate them before you were nearly on top of them. Night after night Australian patrols crawled across the 20 yards of no man's land, probing their way in the inky darkness until, with their fingers, they found the weapon-slit. When this was found they hurled in their grenades.

Below—As the Australians closed in on Gona, the Jap defenders of that strong-point were soon cut off from the outside world: food and ammunition soon began to run out. Apparently unwilling to risk more ships after the failure of six efforts at succour by sea, they then resorted to the dropping of supply bundles from the air, using for this task nine old "pusher"-type aircraft escorted by some fourteen Zero fighters. But the area on which the supplies had to fall was so restricted that it was not possible to mark out proper flat areas, with the result that a great many of the parachutes and their containers fell into the swamps and forests and were lost.

AS THE RING AROUND THE JAP DEFENDERS AT GONA WAS DRAWN TIGHTER, the enemy could only send in supplies by air. These were dropped by parachutes from old "pusher"-type biplanes in the marshy country around the village (*See* notes above)—*Drawing by W. G. Whitaker*

CURRENT AFFAIRS and the SOLDIER

The Very Latest Ideas in the Education of the British Army

Described by CHARLES GRAVES

JANUARY 2, 1943, marks the first day of the second half of one of the most important developments which the British Army has experienced throughout its history. This is the compulsory setting aside of three hours a week during training periods for education—in addition to the one hour a week in which Platoon Commanders lecture their men on current affairs. This bold experiment began on November 1, and is scheduled to continue until February 28. Of these three extra hours per week, one is left to the discretion of the Commanding Officer, and the curriculum accords with the type of unit. Thus, gunners would probably do extra mathematics, sappers would probably do extra engineering, infantry units would probably go from map-reading to geography and from message-writing to literature.

The second period each week is devoted to "The British Way and Purpose." This is an attempt to inform men about British life and institutions, giving them a wider conception of the Empire and of the Allies with whom they are associated. Above all, men are being taught what is at stake in the war against Nazism, and what they are really fighting for. They are told that the Germans have had a great deal of advantage over us in this war because they have had a much clearer understanding of what they are fighting for—in other words, Hitler's New Order. During this period the men are told that, besides fighting to avenge the occupied countries and prevent similar barbarities in Great Britain, we are fighting to ensure that every man, whatever his race, colour or creed, should be given an equal opportunity of realising the best that is in him; and that we ourselves must defend civil and religious liberty, free speech, the right to combine local democracy, Parliamentary institutions and our great legacy of social legislation.

The third period was originally meant for individual soldiers to have individual training, but as so very few of them really knew what they wanted to learn, it is being extensively used by Army Commands for straightforward religious instruction and discussion.

Needless to say, the success of the whole Army Education Scheme depends very largely on the enthusiasm of the Unit Education Officers. In addition to them, however, there is the Army Education Corps, numbering 1,100 in the field alone. The Director of Army Education is a civilian—Mr. J. B. Bickersteth, the Old Carthusian Warden of Hart House in the University of Toronto, who won the Military Cross and Bar when serving with the Royal Dragoons in the last war. The Director of the Army Bureau of Current Affairs is Mr. W. E. Williams, who became Secretary the British Institute of Adult of Education in 1934.

The badge of the A.E.C. is an open book with cross lances and rifles, and the Corps was formed as recently as 1920. It is true that the Corps of Army Schoolmasters was established in 1850, but it was merged into the A.E.C., which in turn was heavily axed before the outbreak of the war.

In 1939 education was suspended except for enlisted boys and children, and many of the original officers and men of the A.E.C. were employed on other duties. In September 1940, however, a wartime Education Scheme was sanctioned, and steps were taken at once to expand the A.E.C. Besides the Directorate at the War Office, A.E.C. officers were posted to the Commands and lower formations, warrant officers and sergeants being allotted to various units. The idea was that they should act as organisers and form the link between units and the valuable civilian assistance arranged by the Central Advisory Council for Education in the Armed Forces and the Regional Committees. The latter were based on universities, but with voluntary organisations and the Board of Education in support.

Civilian assistance has been of the greatest possible help. In addition to 15,000 lectures given by Army Personnel during the hard-training months of June, July and August 1942, over 21,000 were given by civilians, ninety of whom are full-time lecturers provided by the Central Advisory Council. These lectures are on every conceivable subject, and were given during the men's leisure hours. Leisure-hour lectures still continue to be very popular, in addition to the four hours a week of education to which especial attention has been drawn here.

In addition to all this, there are many courses on handicraft which are extremely popular. And there are also the Handyman's Courses which involve demonstrations of how to be handy around the house—how to fix an electric-light switch or a burst pipe. These tips appeal not only to the men, but particularly to the A.T.S.

Another innovation is the mobile Brains Trust. One of these devotes itself entirely to Anglo-American understanding, and is the complement of the famous "Introduction to England" pamphlet given to each American soldier before he originally arrived in this country. Thousands of troops all over the country have been invited to ask questions about the United States. Occasionally they are troublesome, such as the query, "Why are Americans so positive?", or "Why did America have to wait until Pearl Harbour to come into the war?" The majority are straightforward, sincere questions, such as "Why is American Army pay so high?"; "What is the American equivalent of the Victoria Cross?"; and "What are the chances of emigration to the United States after the war?"

Education through the B.B.C. has not been neglected, and steps are being taken to develop this all-important medium of adult education.

In order to maintain a suitable number of Education Officers, an Army School of Education exists at Wakefield. Here there are courses for the new intake, and refresher courses for veteran Education Unit Officers. At Harlech, too, there is a school, where special emphasis will be laid on the study of current affairs. Thousands of pamphlets entitled *Current Affairs*, or *War*, are issued weekly by A.B.C.A., and *Map Review*, a recent and highly successful experiment, is issued fortnightly to units throughout the country. These may not be communicated either directly or indirectly to the Press or even to anyone not holding an official position in his Majesty's service. In spite of this safeguard, however, Security makes the wording of these up-to-date explanations, comments and directives on the latest phase of the world war less "off the record" than would otherwise be possible. Handicapped though they are in this way, the pamphlets create considerable interest.

In addition to these periodic pamphlets, there are now the booklets entitled *The British Way and Purpose*, describing the stakes for which we are fighting, parliamentary government, local government, law and justice, the social services, education, the national services and our Allies and the British Empire.

The *Notes for the Guidance of Unit Education Officers* issued this autumn are most interesting. Here are one or two points exactly as they occur in the pamphlet:

"Book-keeping, shorthand, typewriting, language, scientific subjects and handicrafts are some of the many things which are being taught successfully by unit instructors. You may be able to extend this list considerably if you try.

"*French from Scratch, German from Scratch*, etc., produced by a Services Committee, are specially designed to suit soldiers beginning language study. Copies can be obtained from your A.E.C. officer.

"Handicrafts will appeal to many men who are not attracted by the more academic subjects. There is a great variety of crafts besides wood and metal work, such as lino-cuts, modelling (duroplast and clay), basketry, rug-making, leather work, model- and toy-making, simple bookbinding, upholstery, the making of models for training purposes, and the odd jobs and decorations needed to improve the men's quarters.

'*Visiting Tutors.*—Where there is a demand for a subject by a sufficient number of men to form a class and you have no unit instructor capable of dealing with it, you should ascertain from your A.E.C. officer whether he can provide a civilian visiting tutor for the purpose. He will, in many cases, be able to help you.

"*Vocational Correspondence Courses.*—These courses are meant to assist 'serious students' of all ranks (men and women) who are anxious to pursue their studies for some professional or technical qualification. Courses are available in, for example, Accountancy, Banking (English and Scottish), Building Societies, Law and Practice, Engineering (Civil, Mechanical and Electrical), Estate Management, Grocery, Insurance, Sales Management and Secretarial Practice.

"Don't think of education merely in terms of lectures, classes and discussions. There are many other means of interesting the men and of getting them to think and speak. Many men had interests in peacetime which they did not consciously consider as educational. Almost every town had its literary society, dramatic society and some form of musical activity. Such activities will be popular in most units and should be encouraged and developed.

"*Literary Clubs.*—A literary club can be formed with these and other aims—to read and discuss the works of an author or the outstanding books of a period; to introduce its members to authors unknown to them; to foster the writing—and reading to members—of short literary articles; to develop a taste for better literature; to read poetry.

"*Music.*—There is very wide scope here—gramophone recitals, concerts, small orchestras, choirs, musical-appreciation circles, etc. You are unlucky if you cannot find or develop talent for some form of musical activity in your unit.

"*Visits to Places of Interest.*—Transport difficulties may arise, but take advantage of any local facilities that exist—art exhibitions, visits to factories, public-utility undertakings, museums, etc."

P.S.—It is an old-established belief that an invasion period always begins on Lady Day. In spite of this, it would appear to be the greatest tragedy if the present scheme of the extra three hours a week devoted to education in the Army should not continue.

"PRIVATE SCRAP" AT THE CHARING CROSS UNDERGROUND STATION: This ingenious robot is composed of tin cans and bones! He is the chief exhibit at a new Salvage Display at Charing Cross which is being run under the slogan of "Private Scrap Goes to the Front." For comparison purposes, the robot has been placed in front of a huge bomber tyre

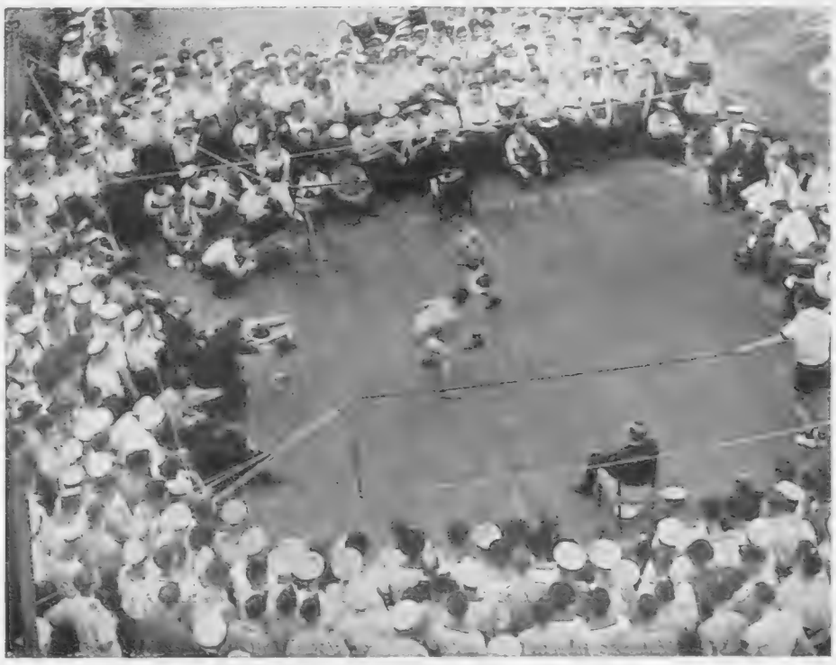
The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export

NAVAL and R.A.F. SCENES

A COLD JOB IN A "BICYCLE SEAT": A devastating welcome will be accorded any hostile aircraft or submarines which come within range of the field-glasses used by these look-out men aboard a U.S. warship. Their chairs allow them to turn a complete circle to scan seas and skies; they have been dubbed "bicycle seats"

PRISONERS BUILD AND LAUNCH A SMALL WAR VESSEL: The *Q*-86 is the first U.S. warcraft to be built by inmates of a penal institution. It was made and launched by the prisoners at McNeil Island Penitentiary at Washington. The 65-foot craft will be used by the Army. The *Q*-86 was launched by the wife of the prison's warden, Mrs. Paul J. Squier

THE NEW C.-IN-C. WESTERN APPROACHES INSPECTS THE VESSELS UNDER HIS COMMAND: Admiral Sir Max Horton, who recently succeeded Admiral Sir Percy Noble, took an early opportunity of inspecting the escort vessels under his command. He is here seen in front of a depth-charge thrower on board a destroyer



ENTERTAINMENT ON BOARD A BIG SHIP AT SEA: A scene on H.M.S. "Nelson" during a boxing contest between the stokers and seamen. Officers and crew take the liveliest interest in these sporting events

PILING UP THE R.A.F.'S HEAVY PUNCHES: A scene in an underground bomb store, where heavy bombs are stacked in separate bays. In the centre, two men are handling one of the American heavy general-purpose bombs

ROWS OF 1,000-LB. BOMBS BEING STACKED IN THEIR BAYS in the store, formerly an underground quarry. Some of the civilians now employed there are the ex-quarrymen: These two pictures were taken recently in a bomb store of Maintenance Command, R.A.F. Here are stored thousands of high-explosive bombs of all calibres, from the small 250-pounders to the 4,000-pound "Berzerksbomben" (block bombs), as the Germans call them. They are all awaiting delivery to the Axis, and will soon be dropped by the R.A.F. in places where they hurt most

The World of Books—By Vernon Fane

HOUSEWIVES, PRISONERS, EMIGRANTS and EXPLORERS

Lady Peck's "House Bound"; Suffolk Viewed from the Tyrol; Back-Stage Hotel Life; Dekobra's Impecunious Emigrés; Freya Stark and Norman Douglas

IN New York, just over a year ago, I remember meeting the editor of one of those fat, shiny magazines in which you have to chase the serial through the food and cosmetic advertisements at the back. Characteristically, he was looking for a "new angle" on Britain at war. There was a famous woman novelist present, very anxious to collar the angle, if and when it emerged. There was also a Lieut.-Commander, R.N., fresh from the Battle of the Atlantic, whose ship was having its holes tinkered-up in an American yard.

The lady novelist thought that it might be novel, and even exciting, to "cover" the multifarious jobs which women were doing. "They drive ambulances in blitzes and even do heavy work in iron foundries," she said. The editor began to show signs of such interest as editors allow themselves in the presence of contributors. He turned to the naval officer. "If you had to pick a real heroine from the women of Britain," he asked, "whom would you choose?"

"Oh," came the quiet answer, "any average housewife."

Lady Peck's HOUSE BOUND (Faber. 8s. 6d.) is a story which underlines the truth of this genuine tribute. There is nothing spectacular nor particularly heroic about the legions of married women who are now battling through their fourth black-out winter, armed only with ration-books which their husbands can't understand), surviving innumerable queues and the almost complete absence of courtesy in the shops; crowded transport, interminable housework; males arriving at odd hours; evacuated children, and worse—non-evacuated ones; schools, soap, clothes and stockingless Christmases.

They get no medals and are never mentioned in anybody's despatches, scarcely receiving a glancing reference in the speeches of politicians. "Holidays at home" demand the authorities, and everybody agrees rather smugly, aware that there won't be a kick out of Mother, who has not yet inherited her soldier son's propensity for grousing.

Lady Peck's Mrs. Fairlaw is representative of tens of thousands of this army of unsung heroines. Although she comes from one particular class, her trials and tribulations have a far wider application, and her story is in astringent contrast to the apotheosis of Mrs. Miniver.

The wrapper of ROUGH SHOOT, by E. H. Lynn-Allen (Hutchinson. 12s. 6d.), is decorated with a frieze of illustrations of the progress of an English partridge from a day-old chick to a strong-looking eight-months-old bird. The sub-title is "Some Thoughts for the Owner-Keeper," and the blurb states that "the object of this book is to help those who have leisure, but strictly limited finances, to obtain a further measure of employment from their relatively small shooting acreage."

The author and the illustrator make no pretensions to anything profound in the art of gamekeeping, but modestly state that it is but a collection of facts and suggestions from personal experience which might be helpful for those who must run their own shoot without professional aid.

Looking at the frontispiece, of some mallard flighting at dawn, and dipping into the first chapter on the choice of shooting ground, one is impressed by the fact that this manuscript and its illustrations were produced in Oflag VII C.

In this charming, helpful and altogether delightful book there is no indication of the rank of the author nor of his collaborator, the Master of Elphinstone. They are simply two British officers, one of whom can bring a partridge, a sparrowhawk, a woodcock, a snipe or a weasel alive on a page with only memory to draw upon, and the other who can write "from our window here I can watch the massed, purple mountains of the Tyrol glowing and fading, in sunshine and cloud, and a blessing they are: but there is a far clearer inward vision of Suffolk marshes, drowsing in the peaceful afterglow. . . . I know that the cock-pheasants are calling there, when the woods begin to dim with the evening mist."

Mr. E. H. Lynn-Allen remarks that the writing of such a book was not the easiest of tasks when there were no reference-books available to turn to in doubt or difficulty, and that his collaborator was working under an even greater difficulty. Anyone and everyone who knows the feel of an autumn day in the English country-side, or on the Scottish moors, will wish to pay tribute to these two prisoners of war whose "memory carries with it the promise of renewal." They can do so by making this book into a deserved best-seller, and I hope that each and every one of them will write a personal note of appreciation to Oflag VII C, Germany.

"SAFETY HATS" FOR FACTORY WORKERS: Workers in thirty war factories have held a competition to find the safest type of hat for women who work machines. There were 400 entries, and six designs by men were among the twenty models which were selected for final judging. On the judges' stand were Lady Rootes, Miss Caroline Haslett (President of the Women's Engineering Society) and Sir Wilfrid Garrett, Chief Inspector of Factories. Above is seen the winning model designed by Mrs. R. Stapleton, a twenty-two-year-old worker in an aircraft factory

A NEW STAR IS BORN: Ten-year-old Petula Clark, Britain's youngest singer and star impersonator, who was discovered by radio producer Stephen Williams, seen while broadcasting at the B.B.C Empire Birthday Party on the 20th of last month. Petula simply stole the show with her solo number, followed by impersonations of Carmen Miranda and Sophie Tucker

The late Arnold Bennett and Mr. Ludwig Bemelmans have only one thing in common when they write about great hotels—a mutual fascination in the complexities of their running. There the resemblance ends, since Bemelmans writes always as an initiate, and as one behind the scenes, whereas even Bennett's most masterly accounts of hotel economics are written from the angle of the interested visitor; deeply interested, perhaps, and very observant, but still on the donating end of a tip.

HOTEL SPLENDIDE (Hamish Hamilton. 7s. 6d.) is an enchanting book of sketches of life on both sides of the service door, in one of New York's Ritziest hotels. Mr. Bemelmans is incomparable, so you will have to read his book yourself to appreciate his quality. And that is precisely what I advise you to do.

Here is a little sample, and, incidentally, a sinister sidelight into the mechanics of running a fashionable restaurant:

"Monsieur Victor used our tables (in a noisy, draughty corner of the balcony) as a kind of penal colony to which he sent guests who were notorious cranks, people who had forgotten to tip him over a long period of time and needed a reminder, undesirables who looked out of place in better sections of the dining-room, and guests who were known to linger for hours over an order of hors d'œuvre and a glass of milk while well-paying guests had to stand at the door waiting for a table.

"Mespoulets was the ideal man for Monsieur Victor's purposes. He complemented Monsieur Victor's plan of punishment. He was probably the worst waiter in the world, and I had become his bus boy after I fell down the stairs into the main part of the dining-room with eight pheasants *à la Souvaroff*."

Not all the stories, however, have as straightforward an opening as that. There is the wonderful account of the magician who asked a ballet girl to tea, and was a trifle disconcerted when she brought the whole troupe with her, and when they all sat down on the floor immediately, and took off their shoes. Why this should come as an especial shock to the magician, Mr. Bemelmans explains with notable delicacy.

For the past two years in New York there has been a group, luckily a very small one, of what M. Maurice Dekobra in his new novel calls EMIGRANTS DE LUXE (Werner Laurie. 9s. 6d.). The qualifying term does not necessarily mean that the emigrants have their own resources of money; only that their tastes and their ideal design for living are luxurious, and that their resources of ingenuity are often devoted to satisfying those wishes.

They are not a particularly attractive gang. They haunt the most expensive hotels, and the least camera-shy night-clubs, and they have, many of them, discovered the cash value of titles, heirlooms, social background and even of good manners. Mr. Dekobra caricatures them a little too gently perhaps.

From her latest book, LETTERS FROM SYRIA (John Murray. 9s.), we learn that Miss Freya Stark went to the Near East in 1927 for her health, and to learn Arabic. From these letters we discover two astonishing things. One is that the author suffered from chronic bad health and that it therefore required a special kind of courage and desire for knowledge and adventure to take her disabilities into some of the most difficult parts of Arabia.

The second is that Miss Freya Stark was not only seeking knowledge and adventure, but was determined to write about it. Anyone less indomitable might have been deterred by the names of Doughty, T. E. Lawrence, Burton and Gertrude Bell. Miss Freya Stark, however, is as serenely competent with her pen as she is confident of pulling through a serious illness in a southern Arabian village.

Well in the tradition, her writings have a unique quality. This is an early book, but in its pages will be found more than a presage of the masterpieces to come.

Such is the book famine that the reprinting of any one of the classics has now become an event. Mr. Norman Douglas's SOUTH WIND (Secker and Warburg. 8s. 6d.) has, in twenty-five years, always been in steady progress on and off the bookseller's shelves. The publishers are to be congratulated on reintroducing this exquisite and ageless novel to those who have been long aware of it, and have never read it, as well as to a younger generation who cannot fail to be entranced by it.

There is a four-page introduction by the author who, in his most typical vein, lets fly at the iniquities of the present international copyright laws.

The Shaftesbury Homes and "Arethusa" Training Ship

DESMOND, aged seven, has no relatives whatever; not a soul in the world. By the time this appears, Desmond will be with other children of his own age in the Society's Country Home for little boys. Would a kind reader like to become a fairy godparent to Desmond? If so, please write to General Secretary, 164, Shaftesbury Avenue, London, W.C.2

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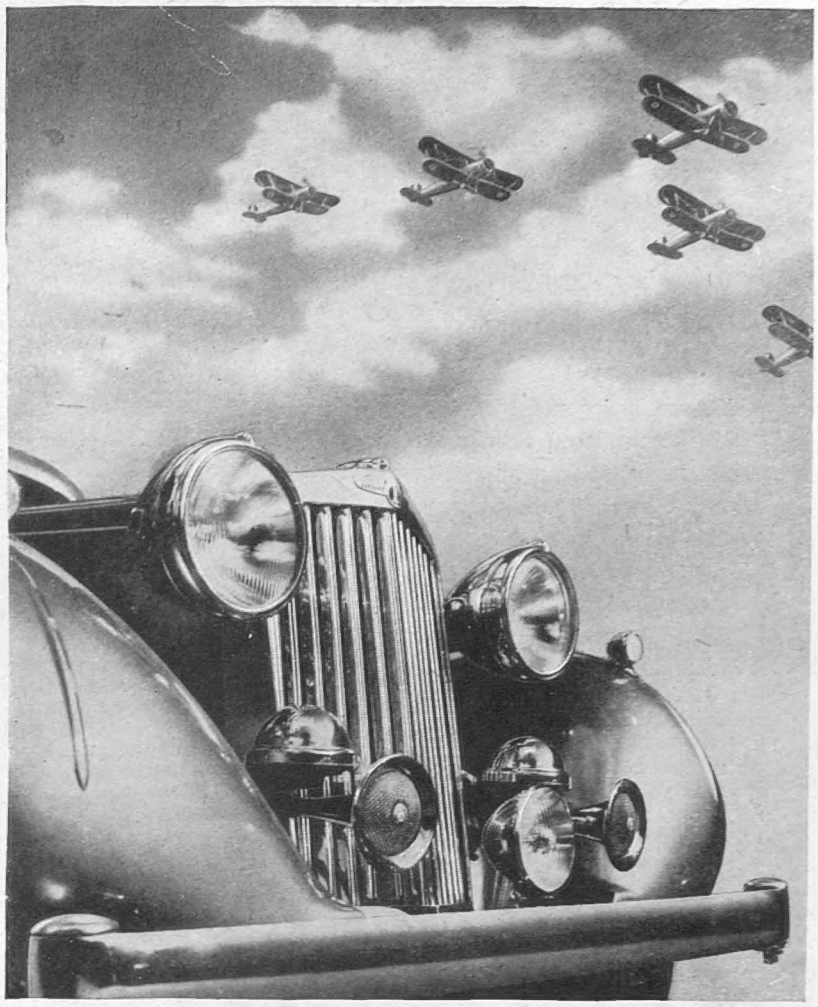

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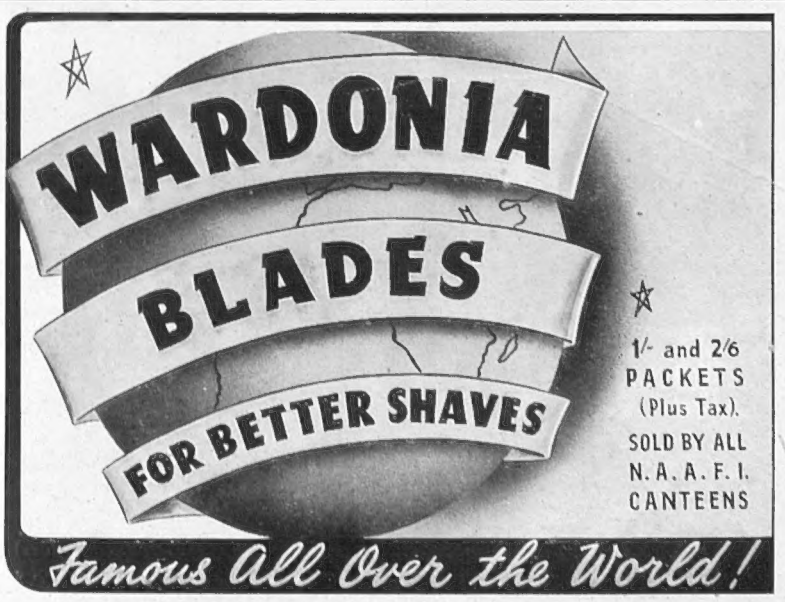

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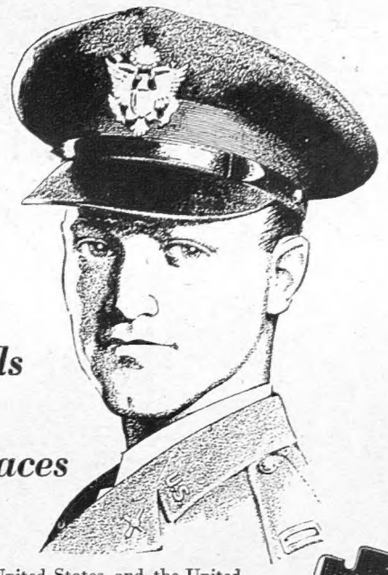

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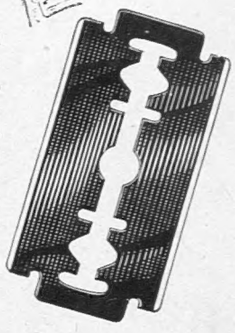

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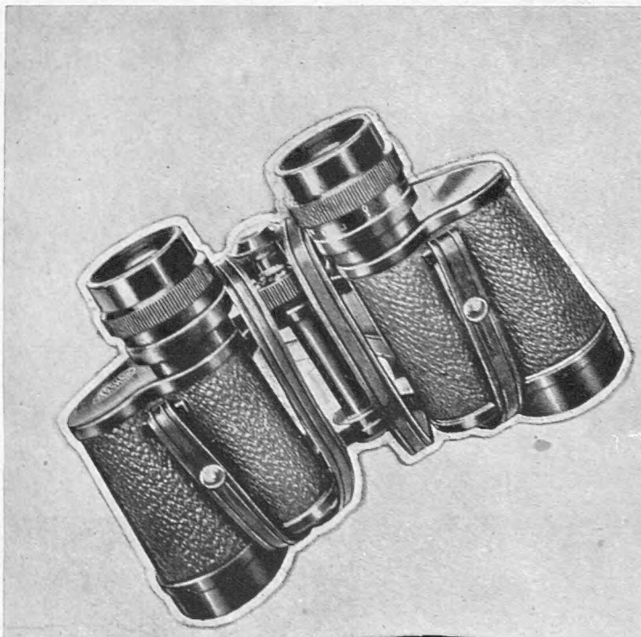

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